Alcogenesis: the normalisation of 'non-problematic' drinking in working adults.

SEDGEWORTH, CAITLIN,IRENE

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Caitlin I. Sedgeworth

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Abstract

Alcohol is one of the leading preventable causes of death and disease in the UK. Most alcohol research tends to focus on underage, student, and binge drinking, or alcohol use disorder. Despite recent statistics showing a shift to older, rather than younger, people drinking problematically, and reduced underage drinking, limited research has examined the 'missing middle': working adults.

This research applied theories of deviance (Foucault), normalisation (Parker) and the socio-ecological model to understand the alcohol-related beliefs, habits and motives of working adults. Newcastle was selected as a case study due to its recent development, growing working population, cultural history, alcogenic environment, and reputation as a leisure city.

113 participants completed a cross-sectional online questionnaire of validated tools assessing demographics and drinking habits, general health, beliefs and motives. Only 25 % were aware of the weekly guidelines and half exceeded them. Social and enhancement motives for drinking were most strongly endorsed. Findings were notably consistent across different demographic groups, with the exception of age. Age predicted increased drinking frequency, a perception that their drinking was more responsible than others, reduced association with motives, and reduced support for government intervention. There was some evidence that higher earners also drank more often (although not significant), and salary alongside high drinking frequency also shared similar anti-interventionist beliefs and views of drinking 'more responsibly'.

The findings suggest that both drinking and excessive (i.e., over-guideline) drinking is normalised amongst working adults, with some support for Parker's theory. Excessive drinking and binging is not recognised as such, and previous 'taboos' (e.g. drinking alone) appear to be weakening. Current (e.g., unit-based guidelines, anti-binge campaigns) and planned (e.g., minimum unit pricing) interventions are not seen as effective or likely to have an impact. More research and public health action is needed to reduce potential future harm in this group.

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[1] *would have

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Abbreviations

AUD – Alcohol Use Disorder

AUDIT – Alcohol Use Disorder Identification Test

AUDIT-C – Alcohol Use Disorder Identification Test - Consumption

BACE – Beliefs about Alcohol and the College Experience

BBN – Best Bar None

DMQ – Drinking Motives Questionnaire

DMQ-R-SF – Drinking Motives Questionnaire – Revised – Short Form

GP – General Practitioner

HCP – Health Care Practitioner

IAS – Institute of Alcohol Studies

KYL – Know Your Limits

LA – Local Authorities

LAA – Local Area Agreements

LAPE – Local Alcohol Profiles England

NE – North East

NHS – National Health Service

NIAAA – National Institute on Alcohol Abuse and Alcoholism

ONS – Office for National Statistics

PHE – Public Health England

RD – Responsibility Deal

SF8 – Short Form – 8 question health tool

SOC – Standard Occupational Classification

UK – United Kingdom

WHO – World Health Organisation

Chapter 1: Introduction

Alcohol is one of the leading causes of preventable deaths globally. Excessive drinking is a widespread challenge across the UK, and evidence suggests this is getting worse: in England there was an increase in alcohol-related deaths of 109% between 1994 and 2016 (Office for National Statistics, 2017). Furthermore, alcohol misuse has been attributed to increasing the risk of numerous serious long-term health problems, including heart disease, stroke, liver disease, and pancreatitis, along with many cancers (e.g. liver, bowel, mouth, and breast; NHS Choices, 2015).

However, health problems are not the sole issue, with long-term alcohol misuse linked to social problems such as unemployment, loneliness, divorce, domestic abuse and homelessness (NHS Choices, 2015). These issues, in combination with the acute problems of alcohol (e.g. accidents/injuries, poisoning, violence/disorder and unprotected sex) mean that alcohol's burden to society is significant. However, it is important to note that to many people, alcohol has benefits. Whether for socialising and enjoyment, historical and cultural purposes, or through production and appreciation of particular 'quality' alcoholic drinks (e.g. whisky, gin, wine) alcohol can arguably play a positive role in society. Balancing the benefits and drawbacks of alcohol has been a long-standing, complex problem; one that I argue has not yet been resolved in contemporary society.

The most recent estimate suggests that alcohol costs £3.5billion/year to the NHS, up from £2.7billion in 2006/7 (Public Health England, 2018). These issues are more challenging in some areas than others due to demographics, drinking cultures and socio-economics. The financial burden of alcohol-related ill-health mirrors and maps on to existing patterns of health inequality where the poorest areas are likely to have the highest alcohol-related health bill but, paradoxically, be the hardest hit by austerity cuts to health services (Smith and Foster, 2014). The North East of England (encompassing Northumberland, Tyne and Wear, County Durham, and Tees Valley) is one such area where alcohol creates a significant social, health and economic burden. In 2016, the North East of England had the record highest rate of alcohol-related deaths in England, which was 81.2% higher

than the national average (Office for National Statistics, 2017). Furthermore, the North East itself is has a 44% higher mortality of liver disease compared to England's average, with Newcastle upon Tyne itself 66% higher than the average (Local Alcohol Profiles England, 2016).The North East, specifically Newcastle upon Tyne, will be the focus of this study.

In order to understand and better resolve the issues associated with alcohol consumption, clear definitions for 'types' of consumption and thresholds for 'misuse' must be developed. Alcohol abuse, as defined by the US National Institute on Alcohol Abuse and Alcoholism (NIAAA), is when one's drinking negatively impacts one's ability to carry out normal daily obligations (i.e., work, school, childcare); when one engages in recurrent drinking patterns which lead to hazardous situations (drink driving); or in anti-social behaviour and involvement with police in relation to alcohol fuelled behaviour (NIAAA, 2016). Full alcohol dependence is characterised by an inability to cease drinking when desired; necessity for increased volumes to experience the same effect; normal daily obligations cut down or ceased; or continued consumption despite knowledge of negative effects (NIAAA, 2016). Using these definitions, I suggest that alcohol 'use' is consumption without these negative consequences. In other words, I define alcohol 'use' as non-dependent consumption of alcohol which does not inhibit a person's functionality or impact negatively on others.

These definitions however, are insufficient when taking into consideration wider work that has been undertaken on the negative effects of alcohol. According to the UK government and Public Health England, the guideline for both men and women for alcohol is a maximum of 14 units per week, which is to be spread out over three or more days (NHS Choices, 2015). Considering that regular prolonged use of alcohol has been evidenced to increase the risk of cancer, high blood pressure, stroke, dementia and liver disease (NHS Choices, 2016) here I argue that if one is drinking excessively (i.e., above UK guidelines) but does not suffer from the negative effects of alcohol as stated in the NIAAA's definitions that they are still 'abusing' or 'misusing' alcohol. That is, drinking above guideline levels, without short-term or current negative effects, is still misuse as it increases long-term risk.

This perspective has begun to be recognised in more contemporary definitions of alcohol misuse, that encompass low and high end non-dependent drinking without the difficulty of pre-conceived ideas of the terminology. For example, the World Health Organisation (WHO) defines the term 'hazardous use' as using a substance which increases risk to one's physical and mental health (WHO, 1994). This definition is not as commonly used as 'abuse' and 'misuse' but it has potential for use in policy, practice, and research, to negate pre-conceived ideas of who is 'abusing' and 'misusing' alcohol, as hazards are universal. A similar issue exists around the term 'binge', which is defined by the UK government as consuming more than 6 units (females) and 8 units (males) on one occasion (Home Office, 2012). However, given that 'binge drinking' is usually associated with young people/students, 'going-out'/parties, large amounts of alcohol, and disorderly/problematic behaviour, understanding of when binging occurs in other contexts may be limited.

One problem of these words abuse/misuse/dependence/binge being widely used is that they are associated with the extreme effects of drinking and thus have the potential to normalise and permit excessive or unhealthy drinking which does not display those characteristics. This is referred to throughout this study as 'non-problematic' drinking, where drinkers are unlikely to recognise or associate their drinking habits with the extreme forms mentioned above and, instead, see their drinking as alcohol 'use' – similar to how I have defined it above. Put simply, non-problematic drinking is defined here as drinking beyond the guidelines without acute problematic outcomes.

Because of the lack of acute problematic outcomes, 'non-problematic' drinking is therefore invisibilised and potentially seen as acceptable or appropriate, despite public health campaigns clearly stating that even small amounts of alcohol/regular drinking can be problematic. A further problem with the terminology of misuse and abuse is the public's perception of what use and abuse of alcohol means to them. There is evidence to suggest that, similarly to recreational drug use, views of alcohol use differ depending upon social class (Brierley-Jones *et al.*, 2014). The middle class view themselves as using substances, whereas the lower 'problematic' class are viewed as abusing

(Brierley-Jones *et al*., 2014). Exploring how views of alcohol consumption by the self, by peers, and by other subgroups of the population might differ is one area explored in the present study.

Alcohol is a key empirical focus across social science and medical disciplines with research covering diverse areas such as research on the epidemiology of alcohol consumption (e.g., Crome and Kumar, 2007), health problems associated with alcohol (e.g., Boffetta and Hashibe, 2006), the diagnosis, treatment, nature of alcohol use disorder (AUD) (e.g., Saunders *et al.*, 1993), and binge drinking (e.g., Crabbe, Harris and Koob, 2011). This research tends to focus on particular populations (e.g., under-age, youth/student and the elderly), often neglecting the 'missing middle'; that is, those who are generally referred to as working adults. Where this population has been the explored, research tends to adopt a narrow focus, on single determinants or atypical population subgroups (e.g., postpartum drinking; Laborde and Mair, 2012). Collectively this means we know little about working adults' drinking habits, beliefs and motives. Due to this, researchers have called for more work exploring 'middle age', 'white collar' and non-student individuals (e.g., Harvey *et al.*, 1992; Ling *et al.*, 2012; Muhlack *et al.*, 2018). This is important as emerging data suggests a social shift in drinking patterns – younger adults are drinking less, middle-older aged adults are drinking more, and income is emerging as a predictor of increased consumption (Office for National Statistics, 2016). Additionally, the 'missing middle' are generally healthy, partially because of their age and partially because they are at least well enough to work. Therefore, this group tends to have minimal contact with organisations through which public health messages are traditionally transmitted (e.g., education and healthcare). Given this, we might conceptualise this population as 'harder to reach'.

This harder to reach group are missing from public health campaigns and also from alcohol policy interventions, which have focused on particular patterns of drinking associated with problematic outcomes (e.g., public binge drinking). Policy tends to focus on acute problems, which require attention from multiple services (e.g. police, emergency healthcare). This, and the political pressure to reduce very visible forms of binge drinking – particularly teenage - means that other 'non-

problematic' groups are neglected. Policies that do exist tend to stray from public health professionals' advice and are increasingly similar to policy recommended by drinks industries (Hawkins *et al.*, 2012). For example, increasing the reach of 'drink responsibly' messaging, which ultimately delegates responsibility for change to the consumer. A more detailed consideration of how alcohol-related policy and intervention have failed to impact working adults can be found in Chapter 2.2.

In sum, a recent shift in drinking of young people and adults, the lack of research into the working adult population, and the potential complexity of implementing appropriately-tailored interventions to working adults formed the basis for this study. In addition, theories of normalisation are explored and critiqued (e.g. Foucault and Parker) as frameworks for characterising non-problematic drinking in working adults. Theories of normalisation were chosen due to the wide-spread nature of drinking and its regular occurrence in social situations. Foucault's theory of normalisation and deviance was chosen for analysis in this thesis due to its primitive introduction to the concept of normalisation. The theory is then critiqued for its possible use in understanding alcohol consumption in working adults. A more recent theory by Parker *et al.* was also chosen for its similar focus on the normalisation of drug use. This theory is critiqued for its potential uses and shortfalls when assessing the normalisation of both alcohol consumption and excessive alcohol consumption. The socio-ecological framework was then chosen for its use in assessing the alcogenic, environmental factors that influence drinking-related habits and beliefs. This framework is assessed in combination with Parker *et al.'s* theory of normalisation in order to understand alcohol-related behaviour. To my knowledge, this is the first time that these sociological and psycho-social theories have been used in combination, allowing some comparison of their relative applicability in this context.

Before outlining the methods used in the research, Chapter 2 will present a review of the literature covering: Newcastle's history and current relevance with regards to alcohol and this study, public health and policy, and theories of normalisation and the socio-ecological model.

Chapter 2: Literature Review

This literature review is split into three sections; each section provides background understanding and assimilation of the important information which allowed for the completion of this study. First, *Understanding Newcastle*. This section reviews the history and recent development of Newcastle upon Tyne, with a particular focus on pre and post-industrial culture and population demographics. The regeneration of Newcastle in the past few decades is also a focus of this section. Combined, these components allow the understanding of why Newcastle is an interesting and important place to situate this research. Second, *Alcohol Policy*. A brief history of alcohol policy is reviewed to gain an understanding of historical events that may have had an influence over both contemporary drinking and policy. Recent alcohol-related policy is also reviewed and critiqued for effectiveness, key foci, and future plans. Thirdly, *Normalisation of Alcohol Consumption.* This section introduces and reviews theories of normalisation and their previous use in different settings, including the work of Foucault (1979) and Parker *et al.* (2002). This is followed by an introduction to the socio-ecological model, with particular focus on psychosocial factors and their influence on alcohol use. Together these theories are critiqued for their relevance to alcohol consumption, and potential future uses in this field of study. The study's research questions are then presented.

2.1 Understanding Newcastle

This section reviews the history and recent development of Newcastle upon Tyne, with particular focus on population demographics, regeneration, and culture. Reviewing these components demonstrates why Newcastle is an interesting and important place to situate this research, and also frames its contemporary drinking cultures. Historical change in Newcastle in terms of demographics, education, industrial strategy, and the development of a locally-distinctive economy and culture have arguably underpinned some elements of the contemporary drinking cultures observed. The dynamics and contribution of each of these will be assessed in this section alongside comparisons with other regional cities to highlight the differences that exist, demonstrating that Newcastle's drinking culture requires further research to better understand current and future trends.

In order to understand why Newcastle has developed differently to other cities in the North East of England, it is important to look back at the recent history of the area. Newcastle upon Tyne's demographics have shifted significantly over the past few centuries. Newcastle, being one of the oldest cities in the North of England, has long been seen as a hub and a city of importance due to its location on the River Tyne and assets that existed around it. Newcastle managed to remain in better standing than its neighbouring towns during industrial hardship, even when resources dwindled (e.g., wool in the 19th century, and later, coal in the 20th century), due to exportation through its port from other areas (Newcastle Local Studies, 2009). The first industrial revolution, which took place between 1750-1850, brought a surge in population to Newcastle as workers – whom predominantly worked in agriculture – moved to the city to take up jobs in coal, factories and steel works, much like other North East cities. The census data suggests that the population increased from 80,000 to 280,000 over this period, partially attributed to the expansion of Newcastle into other pre-established towns (Newcastle Local Studies, 2009). The second industrial revolution in the 1900s brought about the production of steam engines and further emphasis on ship building maintained the population despite the decline in other employments - such as mining - in the area (Newcastle

City Council, 2009). Newcastle suffered from a stagnancy and decline in industries during the inter-war depression. It is however thought that due to Newcastle's economy being more diverse and its previous development that it suffered less than most other towns. This will be further evidenced below in the comparison of population trends with other North East urban areas.

De-industrialisation from the 1960s onwards, however, much like many parts of the UK, brought about huge redundancies in the Newcastle area. Closures of steel works, mines and reduction in ship building – due to new development in ways to import and export - meant that much of Newcastle's population became redundant. Due to these closures, the population of Newcastle went into decline, partly through those moving away to find work elsewhere, but also through stagnancy in migration to the city, meaning that there was no replacement of the working population (15-64 years old) (Johnson, 2019). The population of Newcastle became rapidly ageing; accessibility to services remained solely in cities so many of the elderly population would not move away unlike those who were able to work. Up to this point, Newcastle's population demographic trend mirrored other areas in the UK that suffered from de-industrialisation (University of Portsmouth, 2017).

However, in recent decades Newcastle has undergone a significant programme of regeneration and has seen an increase in working population of 15-64 year olds, which has steadily inclined from 64% to 70% between 1991 and the most recent census in 2011 (University of Portsmouth, 2017). It has also seen a decrease in its elderly population over the same time period from around 18% to 14% (University of Portsmouth, 2017). In comparison, other areas of the North East such as Sunderland and Hartlepool have seen lesser increases in their working populations, 2% and 0%, resulting in a working population of 67% and 65% respectively (University of Portsmouth, 2017). Similar contrasting trends can be seen for their elderly populations. In Sunderland the percentage of over 65s has increased from 16% to 17% and Hartlepool 15% to 17% (University of Portsmouth, 2017). Importantly, this data suggests that Newcastle's recent development has differed to regional comparator urban areas.

Today Newcastle's population is estimated to be over 300,000 (based on 2011 census and growth predictors) and is steadily increasing, contributing to more than a quarter of the total population of the surrounding area, known as Tyne and Wear (1,104,825) (ONS, 2011). Post deindustrialisation, Newcastle brought around changes to halt the population decline and stimulate growth of its young population. It did this through multiple sectors, aiming to draw in a young, working population. Specifically, these included strategic investment in: physical infrastructure and regeneration, redevelopment of the city centre with a focus on retail and entertainment, cultural rebranding, education, and promotion of digital, science and technology industries (Newcastle City Council, 2006, 2009; Johnson, 2019). How this investment worked, and its subsequent effects, are explored in turn below.

Education played one of the key roles in the regeneration of Newcastle; the two universities (Northumbria and Newcastle Universities) were a central focus for aiding the local strategic policies which would focus on skills and learning to combat the decline. Educational specialisms in science, industry and business became a large focus for the North East, bringing new opportunities for those to study and then work in areas such as digital technology, energy and process industries. An example of this is SAGE Group, now a worldwide software company with its headquarters in Newcastle. SAGE was started by a local business man and an undergraduate student from Newcastle University and has become the UK's second largest technology company employing 13,000 people worldwide (The Sage Group, 2018). Professional media have argued that Newcastle is one of the most exciting start up cities for technology due to its strong university design and computing courses and low living costs (Hellard, 2018; Manning, 2018).

The introduction of a second university (Northumbria University) to Newcastle brought in further development and funding to for new courses, accommodation, university buildings and places of student interest. Northumbria University was officially awarded university status in the early 1990s drawing in further departments to come under its new name which caused it to expand rapidly in

the 21st century and become the largest university in the North East with around 32,000 students (Northumbria University, 2018). These changes to education and creation of new sectors in which to work and study were designed to bring jobs, funding and investment back to the area. From the 2011 census it can be seen that the number of people with university degrees or equivalent doubled from less than 14% in 1991 to 28% in 2011 (ONS, 2011). Newcastle is now a city designed around young people, offering good job and studying opportunities alongside low living costs and a good work life balance; this is has helped Newcastle increase the amount of young and educated people living in the city.

Alongside education, regeneration was another key focus for re-inventing Newcastle. Knowing that it was necessary to attract a young workforce and tourism, Newcastle City Council implemented programmes which created the city's reputation, this was and still is based around its vibrant night life and retail orientated centre. Regeneration schemes were rolled out throughout the city with particular investment in retail; examples of these are Eldon Square, Eldon Gardens, Monument Mall, and Metrocentre all of which are still widely used and expanding today. These large scale shopping areas drew consumers from across the wider area and created thousands of new jobs for unskilled workers, keeping them in the area and combating the population decline. To balance the foreseeable increase in city centre visitors, car parks and better road infrastructures alongside city centre links and cycle ways were planned in tandem (Newcastle City Council, 2006).

Newcastle's history and industrial heritage was, however, retained. Many of the old industrial buildings were either repurposed into functioning buildings with modern uses (e.g., The Biscuit Factory, now a gallery and upmarket restaurant), or knocked down and re-built as upmarket housing due to their location (e.g., Quayside flats). Pedestrianisation projects were introduced to preserve the areas and buildings constructed in the 19th century and to encourage footfall around the city centre were undertaken in collaboration with a local arts council – Northern Arts. Northern Arts helped promote public art and community involvement using Newcastle's city centre architecture

and history to produce sculptures and murals with a nod to Newcastle's heritage. The council invested in these projects to improve the environment and enhance public spaces, encouraging locals to have input into their own community spaces and their regeneration. Local investment from companies and the council have also assisted the building of cultural spaces such as The Baltic (gallery, restaurant and conference venue) and SAGE Gateshead (music and art venue) to become the integral part of cultural events that exist in Newcastle today. These have aided Newcastle to promote its history and culture and utilise these elements to re-invent itself, not only as a party city, but as a city of cultural relevance, to draw in tourists (17.38 million tourists visited the area in 2016 – which was 3% more than 2015; Newcastle and Gateshead Initiative, 2017) but also enhance the experience of those living in the city itself. These elements combined have contributed to Newcastle achieving its growth in its working population that has been seen over the past two decades and is set to continue to increase.

One of the other main foci of Newcastle's re-branding was its emphasis on pubs, bars, restaurants and clubs. Although previously having establishments for both the working classes and the middle – such as Theatre Royal, it intentionally created a city centre with a vast choice of entertainment and consumption - both food and alcohol – leading to its current reputation of a 'party city' (McIver, 2009; Newcastle City Council, 2009). With this reputation Newcastle was able to secure weekend tourism and give itself an edge for attracting people to come to work there with the promise of a good work/life balance. Newcastle is relatively inexpensive and well linked to both Scotland and the rest of England, by road, rail and air, this has also allowed the city to become a popular destination for holidays, day and weekend trips – and with its reputation of a vibrant night life, has also become largely popular as a stag or hen destination. From the above it can be argued that Newcastle's city centre design, population of both professionals and students alongside its reputation as a recreational destination have resulted in the emergence of a range of different drinking cultures in Newcastle that we see today.

Drinking culture

Given the complex and multi-layered history of Newcastle, several contemporary drinking cultures co-exist. Firstly, there is a 'traditional drinking' culture, with working men's pubs typically serving a variety of beers (Brierley-Jones *et al.*, 2014). Secondly, a 'home drinking' culture is present due to the large increase in accessibility and affordability of buying alcohol (Brierley-Jones *et al.*, 2014), this along with a shift in attitudes towards women's drinking has increased the prevalence of this culture. Thirdly, a lad and ladette culture, born in the 1990s after the equalising of rights, this culture is arguably what underpins current binge culture. Lastly, alongside these is also an emerging 'gastro-pub' drinking culture, where both food and alcohol are a focus of the establishment – this drinking culture could be considered omnivorous. Factors underpinning the development of these cultures are considered below.

Newcastle's drinking cultures do however stretch back further than the recent regeneration of the City, and introduction and growth of the universities. Newcastle, being a predominantly industrial city, had an Industrial drinking culture, which was primarily focused around public houses for the working classes. In the 1900s, these spaces were seen as society's pivot, originally a place of escape and exploitation where workers were encouraged to gather by employers and beer was seen as less harmful than the poorly sanitised water, they remained a central part of society (Pritchard, 2012). The public house became a male dominated environment as male-only industries such as steel and coal fed into their establishments alongside a leisure culture of sport – in Newcastle this was football. These factors combined led to a cultural masculinity; women and children were rarely involved, furthering the divide between genders (Hands, 2018). This masculine environment excluded women from such establishments until the mid-20th century, where they were only occasionally allowed in, and only if accompanied by a male. Legally, women could be refused to be served, this changed in 1982 when a legal challenge on the basis of the 1975 Sex Discrimination Act

was successful, enabling women the same rights as men with regards to their money and spending it (Spark, 2016).

De-industrialisation came at a time of movement in terms of women's rights and place in society. It became increasingly common for women to be in employment, with a rise from 34% to 60% in Newcastle between 1950 and 2011 (University of Portsmouth, 2017). Similarly, women became legally allowed to invest money (1975) and had more freedom to spend as they desired; this brought around new business and capital opportunities to the UK. The 1980s and 90s brought a soar in alcohol consumption, firstly due to women being legally allowed to consume alcohol in public (as well as private), but also due to alcohol consumption by women being viewed as more acceptable in both settings (Smith and Foxcroft, 2009). There was a change in industry behaviour too, recognising the market potential of women customers (Campaign for Real Ale, 2015). Ways to drink diversified; cheap and accessible products were available for home-based drinking, and pubs and bars became less masculine as novel establishments were more inclusive (e.g., cocktail bars), leading to the huge variety of pubs, bars, and off-license premises that can be seen today.

A further element that has affected modern drinking culture is what is known as 'lad' and 'ladette' culture. In 1993, Sean O'Hagan - a journalist - coined the term 'new lad' which was where the beginning of what would be known as lad culture started. Lad culture involves acting in a boisterous nature, heavy drinking and violence, alongside the objectification and dismissal of women (Naylor, 2017). It is suggested that due to the post-industrial decline in work, breeding poverty and unemployment , alongside the increase (balancing) in women's rights and job opportunities, a sub culture of masculinity emerged as a way of having an identity in a 'new society' as men thought that the recent changes of pro female society would make males redundant (Naylor, 2017). The 1990s saw the normalisation and promotion of lad culture and its sexist attitudes through the use of 'Lad mags', an example being 'Loaded', a magazine claiming its content – drink, sex, football among other popular readings were for men (Naylor, 2017). From this newly formed sub culture, what is termed

the ‘ladette culture’ emerged. Women adopted these ‘new’ societal masculine norms to continue, in their view, the equality of sexes. This saw women mimicking the drinking and ‘laddish’ attitudes of their male counterparts, although often portrayed negatively, and contributing to what is known today as binge culture. Alcoholic beverages (e.g., beer/ale), and establishments (e.g., pubs) previously and still to an extent thought of as masculine are now more commonly consumed/used by women (Campaign for Real Ale, 2015).

Emerging drinking cultures such as ‘gastro-pub’ are becoming increasingly common as establishments in cities diversify in order to keep themselves economically sustainable but also so to continually drive contemporary quirky trends. Another way to interpret this type of drinking culture would be that it is ‘omnivorous’, where individuals do not assign themselves to one specific practice of drinking (i.e., traditional or home drinking) rather they partake in a multitude of drinking practices, in a variety of locations, and also often drink a variety of alcoholic types (i.e., wine and beer).

Today, the cumulative impact of the above has influenced the creation of new drinking cultures in Newcastle and can be seen in the diverse range of leisure activities that can be sought. Despite being infamous as a binge city, there is no one drinking culture that inhabitants conform to in Newcastle. Elements of the masculine industrial drinking culture can be seen, with some establishments still set up similarly to local public houses and social clubs, serving ales and lagers for post workers and ‘traditional drinkers’ (Brierley-Jones *et al*.). However, moves towards equal rights for women have influenced changes in the way in which alcohol is consumed and the huge variety of establishments and occasions in which it is consumed. Thus, in Newcastle, there are drinking cultures and sub-cultures associated with working adults, weekend binge tourists, and students concurrently.

2.2 Alcohol Policy

These changes and complexities associated with differing drinking cultures have necessitated changes in policy and approaches. The following section outlines a brief history of alcohol policy in the UK, reviewing historical periods of relevance with an extended focus on the burgeoning policy development of the last 15 years, concluding with the Alcohol Charter published in October 2018.

17th and 18th Centuries: The start of 'othering' in alcohol policy.

Alcohol legislation in England is far from new. Legislation of alcohol was in primitive effect as early as the 1200s where ale was enforced to be sold at the same price as bread (Nicholls, 2009). Significant historic examples of alcohol legislation and government intervention can be taken from the 18th century, which saw the introduction of consecutive alcohol policies targeting what was known as the 'gin craze' or 'gin epidemic'(Abel, 2001; Nicholls, 2009).

The 'gin craze' was a period in the early to mid-1700s where the consumption of gin increased from around 1.23 million gallons up to 7.05 million gallons per year at its peak (Mitchell and Deane, 1962). This increase in gin consumption was precipitated by the UK parliament altering importation legislation, which enforced a ban on the importation of wine and spirits from France allowing distilleries in the UK – then inexpensive to start up - to proliferate (Sword, 2017). This led to a sharp increase in per capita consumption where, at peak, adults were consuming an average of over 2 gallons of gin a year per capita (Warner *et al.*, 2001).

Over-production in response to demand meant that during the 1700s the price of gin plummeted making it cheaper than beer; it therefore became the most accessible, affordable, and hence consumed alcohol for those termed 'lower sort', 'lower orders' or 'inferior rank'(Abel, 2001) , who with poor work, domestic and social environments took to cheap gin consumption as a way of dealing with their daily lives (Abel, 2001). The gin craze particularly affected London, a city of over-crowding, unemployment and poverty (Abel, 2001). London experienced an influx of working class

persons as the lands surrounding the city became privately owned causing a reduction in agricultural jobs, forcing people to move to the industrialising-city. The outcome of which was consistent with Marx's (1887) depictions of the realities of a capitalist society where the social relations of production create dependency and reproduce inequalities (e.g. Das Kapital, 1887). Competition for minimal jobs at low wages drove pay down further, causing an increase in poverty but profit for the wealthy. Social unrest and disorder increased, as members of the lower orders refused to work for such small pay. The social un-rest was attributed by the upper class to the excessive gin consumption rather than a result of poverty and conditions. Aligned with the propositions of Marx's theorising, Abel (2001) suggests that one of the reasons that the State eventually decided to intervene was concern over the potential 'enfeebling' of England's labour force – and therefore – its capital and security, not necessarily because of empathy and a desire to aid those in abject poverty.

Furthermore, gin was viewed by the upper class as a 'foreign' drink and drunkenness by gin deemed to be an irresponsible thing, whereas drunkenness by beer – the national drink – and wine was viewed in a more affectionate way, associated with the 'superior class' and unassociated with problematic behaviour (Abel, 2001). This grouping of gin as the problematic alcohol and those in the inferior class as the problematic group is an early example of socially constructed 'othering' by another group (Said, 1978). Othering has been used to describe intergroup discord in society across multiple contexts from gender to socio-economic class; however, one significant example is racial othering. Kakel (2011) uses othering to describe the process which occurred in Nazi-Germany which ultimately spread and allowed the 'elimination' of 'the Jews' (Kakel, 2011). By othering a population sub-group a government creates a rationalisation and a justification for actions targeting or disadvantaging that group. The 18th century othering of gin - but more so those who drank it - broadened the perception of gin drinkers as an 'inferior rank' and provided the support base for government intervention.

Reacting to the gin craze, between 1700 and 1771, there were a total of 11 Acts of Parliament concerned with creating legislation around distilled spirits, some of which were specific Acts targeting gin, and others it was a part of a different Act (e.g. the 1737 Sweets Act). The majority of these legislations sparked huge public backlashes against both the Act and the government as their hard crackdown on production and consumption battled with the public opinion. With each new Act becoming progressively prohibitive, riots occurred which gradually increased in violence (Difford, 2012). The Act released in 1738 essentially outlawed gin entirely, and despite introducing laws to prohibit attacks on informants - who were working on behalf of the government to uphold the law - attacks and murders were carried out as a message to parliament and those considering working alongside them (Difford, 2012; Sword, 2017). This increase in violence with each new policy along with a failure in policies to not only curb consumption of gin and reduce crime but to learn from their predecessors led to the constant revoking and reforming of many of early gin acts.

It was not until the 8th Gin Act, known as the 'Tippling Act' in 1751 that gin production actually fell significantly and black market gin sales almost entirely ceased (Abel, 2001; Warner *et al.*, 2001). The Act itself had only minor increases to duties for distillers and a low £2 license fee for retailers, which was only granted to inns, alehouses and taverns, a significantly lesser fee in comparison to previous Acts where fees were as high as £50 (Difford, 2012). This targeting of duties from distillers rather than retailers, alongside a wider public campaign to prohibit gin linking it to London's high crime levels, is thought to have contributed to the successful curbing of the gin epidemic (Difford, Abel, 2001). Although, Abel (2001), among others, argued that it is also other factors such as the Seven Year War (1756-1763), and the introduction of the Small Pox vaccination (1760s), that were responsible for the notable decrease in crime, consumption of alcohol and death rates in the period following the 'Tippling Act'.

19th and early 20th Centuries: Temperance, global conflict, and nationalisation trials.

Throughout the 19th century and early 20th century alcohol consumption trends varied, with significant historical events effecting society's beliefs and habits of drinking. The expansion of The British Empire throughout the 1800s and 1900s meant that Britain required a large pool of able-bodied working-class men (and latterly women) to aid in its expansion overseas. The working class was a key part of Britain's imperialist movement, being the labour for projects both in Britain and abroad. The constant requirement for labourers and soldiers necessitated a young and able work force to exist which was a central aspect to both the temperance movement and World War I.

The temperance movement encompassed ideas from both Evangelicalism and Utilitarianism, whereby the middle-class sought to 'educate' the lower class and set a precedent of what a 'true man' was. Men whom abstained were deemed to be in control and acting as per the bible (Smith, 1992). This movement predominantly targeted the male working class for two reasons; firstly, the drinking habits of women were unknown, and secondly, the middle class had a desire to help solve the problems of the lower class, a further example of the 'othering' associated with alcohol and its perceived problematic groups that modern day policies also focus on. Another encouragement for temperance was the State's requirement for the work force to be fit and able to work productively in order to be beneficial to the success of The Empire.

World War I was another significant moment for government intervention on alcohol consumption. Concerned about alcohol being detrimental to the productivity of munition factories and other key assets to the war, the government introduced tight restrictions on the production, and supply of alcohol, specifically beer (Kneale *et al.*, 2009). Some of these widespread measures included; shorter opening hours, higher duties on alcohol and a reduction in the strength of beer (Kneale *et al.*, 2009; McAllister, 2014). Specific areas that were deemed to be particularly problematic due to rurality and higher wages, one example being Carlisle, were used as an experiment by the government to nationalise the drinks trade. 'The Carlisle Experiment' saw the nationalisation of breweries and

public houses in the city and surrounding areas in an attempt to keep workers sober. Many of the pubs were closed under state rule; those that remained open were modified to have no advertisement, shorter opening hours, large open spaces, more expensive drinks and the necessity to have food available alongside alcohol (Historic England, 2019). Landlords were replaced by civil servants who were paid a designated salary that would not be influenced by increasing sales. The scheme was deemed a success and was extended after the war, continuing to operate until its abolition in 1971 (McAllister, 2014; Historic England, 2019).

The start of modern alcohol policy (2003-2012): A step in the right direction?

The UK saw a steep rise in alcohol consumption from the late 1990s culminating in what is known as 'peak booze' in 2004, where the UK was drinking the equivalent of over 100 bottles of wine per person per year (Institute of Alcohol Studies, 2013). It was not until these recent increases in the mid-late 20th century in both alcohol consumption and harm, along with a significant increase in affordability of alcohol that the government decided to release a new series of strategies to tackle the issue alongside an update in licensing. The New Labour government first made an announcement in 1998 that it planned to prepare a national alcohol strategy; however, this strategy took 6 years to publish, finally coming into light in 2004.

The Strategy was preceded by a change in legislation, The Licensing Act (2003), which is still applicable in England today. The Act currently has four licensing objectives: 'the prevention of crime and disorder, public safety, prevention of public nuisance and the protection of children from harm' (HM Government, 2003). Comparatively, in Scotland there is a fifth objective of 'protecting and improving public health' (Scottish Government, 2010). With Scotland leading the way in alcohol policy reforms using evidence based policies, targets and evaluations, the Scottish Licensing Act backs up the idea that public health should be an important consideration for licensing. With no nod to public health commitments, England's licensing act is furthering the notion that the Act is

outdated and is being interpreted to the advantage of the trade, with no requirement for them to alter their own agendas with regards to public health problems (Foster, 2016).

This first national alcohol strategy was called the National Alcohol Harm Reduction Strategy for England (NAHRSE). Having taken several years to put together after its original announcement, it was heavily criticised for its lack of depth and evidence based decisions (Drummond, 2004). Positives to the strategy included the awareness and recognition of recent increases in alcohol consumption and harm, alongside understanding the necessity to better educate the public about the harms associated with drinking, particularly targeting underage drinking. A further highlight of the strategy was its aim to tighten restrictions of alcohol sales to individuals who were already intoxicated, and encourage 'sensible drinking'. The message of sensible drinking itself was to be made clearer for the public to easily understand and industries were to assist in spreading this message with advertising and labelling changes. Alcohol advertising that appealed to under-age drinkers was banned. However, the government put no measurable targets against these policies, and promoted a shared responsibility across the government for the implementation of these changes; this has been criticised as preventing the strategy to be seen as one of importance as there is less individual responsibility. According to Frieden (2014), effective public health policy requires that both evaluation and management are in-built into the policy, by neither having measurable targets for reviewing nor allocating specific responsibility the potential for the policy to succeed is reduced.

Furthermore, the proposed policies are not targeting the population as a whole but focussing on one or two aspects of the alcohol problem. This othering can be seen within the first page of the NAHRSE where Tony Blair's foreword uses phrasing such as 'small minority' when referring to those who contribute to 'alcohol misuse' versus the 'millions of people who drink responsibly' (HM Government, 2004, p.2). In this instance, 'alcohol misuse' is specifically tagged to crime and anti-social behaviour, and health harms from binge and chronic drinking. It is also mentioned that 'moderate drinking can bring some health benefits' (HM Government, 2004, p.2), a statement with

no quantification, without which can be left open to individual interpretation and a fact that has since been disproved by Griswold *et al.* (2018). The study by Griswold *et al.* used data from 694 individual and population alcohol consumption sources alongside data from 592 prospective and retrospective studies on the risk of alcohol use – the largest collected evidence base to date. The study concluded that drinking causes substantial harm to health in a range of ways, with zero alcohol being the only minimiser of health loss. It is this focus on the 'small minority' that promotes the idea that if an individual is not contributing to crime and acute alcohol incidents or binge drinking that they are indeed drinking 'responsibly' – and worse in this case, drinking positively. This disregards statistics from the 2004 General Household Survey in which 28% of men and 17% of women aged 45 years and over reported drinking alcohol on 5 or more days a week (Institute of Alcohol Studies, 2004). This demonstrates that those drinking over the recommended unit guidelines are not a 'small minority' of the population, which implies that – according to the government - those who are not contributing to disorder or the acute problems of alcohol are in fact drinking responsibly. This, as Griswold *et al*. (2018) highlighted is not the case as any consumption of alcohol is detrimental to health.

The increase in powers to local areas and changes to policing reflected the government's understanding of what they deem to be problematic alcohol consumption - focussing on crime prevention and other associated problems of 'binge drinking'. There was little in the 2004 strategy that sought to reduce whole population consumption using evidence based research. In 2006 Drummond and Chengappa published 'Alcohol Industry and Alcohol Policy in the United Kingdom' which criticised the strategy for its lack of evidence based policies and its over-indulgence to industries input. The table below, edited from Drummond and Chengappa's paper, compares cost-effective alcohol policies (Babor *et* al., 2003) with the NAHRSE policy responses (Drummond and Chengappa, 2006).

Table 1: The Alcohol Harm Reduction Strategy mapped against Babor et al. (2003) analysis of effective alcohol strategies, edited from Drummond and Chengappa (2006).

Policies	**Likely Impact**	**Government's response in the Alcohol Harm Reduction Strategy and Licensing Act**
Taxation and Pricing	High	No changes made, argued the issue is "more complex than price".
Restricting availability	High	No changes made, 24 hour availability remained.
Limiting density of outlets	High	Issue left to "Local planning"
Lower BAC (blood alcohol concentration) driving limits	High	No change to current BAC limits
Graduated licensing for young drivers	High	No
Minimum drinking age	High	No
Brief interventions/treatment	Medium	"Lack of evidence" This issue requires a needs assessment and evidence review to develop an Alcohol service framework
Safer drinking environment	Medium	"Lack of evidence" This issue requires a needs assessment and evidence review to develop an Alcohol service framework
Heavier policing	Medium	No increase to policing, NAHRSE recommended antisocial behaviour orders and on the spot fines
Public education campaigns	Low	Yes, NAHRSE wants to increase reach of safe drinking message and supported unit labelling.
School based education	Low	Yes, more education backed in NAHRSE
Voluntary advertising restrictions	Low	Yes, supported and backed in NAHRSE

The table clearly displays the government's lack of evidence based decisions for alcohol policy whilst writing the national strategy. Further to this, the government may have delayed potential formation and implementation of knowingly successful policies by encouraging further reviews to these policy areas (e.g. brief interventions). There are few policies in the strategy that has been supported by public health professionals; instead, many of the policies put forward are similar to those that are supported by the alcohol industry prompting questions of its over-involvement in alcohol policy (Room, 2004; Drummond and Chengappa, 2006).

As per the NAHRSE's commitment, the review and update of the national strategy was published in 2007 and was called 'Safe, Sensible and Social: The Next Steps in the National Alcohol Strategy.' This strategy was an expansion and continuation from the NAHRSE, focussing on underage drinking, binge drinkers and harmful drinks – more specifically those drinking with increasing frequency both in public and at home. The strategy laid out plans to increase the clarity of the sensible drinking message, as with the 2004 strategy, but focussed more on increasing information and understanding of what units are. The desired outcome being that 'most people' would be able to use this knowledge of units to estimate their own drinking and therefore self-regulate their drinking to be within the sensible drinking guidelines having an understanding of the risks associated with regularly drinking above these limits (HM Government, 2007). There is no specific measurable target for this outcome, and no definition of what 'most people' refers to.

The campaign 'Know your limits' (KYL) was introduced in 2006 and featured heavily in the 2007 national strategy. The aim of the campaign was to provide advice and information as well as promote responsible drinking, particularly targeting 18-24 year olds. A series of adverts outlining the dangers of drinking excessively, targeting young people, were released and although they were not opposed to them, the adverts were criticised by those in healthcare and academia (e.g., the Institute of Alcohol Studies (IAS), 2006). This criticism stemmed from concern about their long-term effectiveness based on previous research and evidence of advertising campaigns having minimal

effect on behaviour change despite recall of the advert (Plant and Plant, 2006). A 2008 review of the KYL campaign undertaken by the Department of Health reported seemingly positive findings of the reach and effectiveness from the first wave of the campaign. However, the report itself used misleading wording from its findings. Of the 522 respondents, reportedly 85% of the 25-34 year olds recognised the campaign, this is worded in the report as 'The campaign is reaching a good proportion of the population of 25-34 year olds' (Department of Health, 2009). This is a misleading statement and it cannot be claimed at population level based on the number of respondents that the campaign reaches 85% of 25-34 year olds. Furthermore, the reporting of the age groups categories and their percentage reach includes 25-34, 35-54, 55-64 and 65+ but has no mention of the results of the 18-24 year old category that the campaign was specifically aiming to target (Department of Health, 2009).

A further focus of the strategy was to reduce to the number of under-18s that consume alcohol, alongside the amount that they consume. The strategy laid out plans to produce more trusted and age-specific guidance for parents and young people to follow, furthering education about the harmful effects of drinking on multiple levels – physically, emotionally, socially. Another round of reducing underage sales, supported by the industry, was also to follow. The industry was also to be included in further voluntary schemes to help reduce the harm associated with alcohol, the main areas being: assist the distribution of the sensible drinking message via labelling of alcohol products and in advertisement, strengthen focus on good practice (under-age sales, serving intoxicated individuals, off and on-trade promotional sales). Government and industry led schemes such as 'best bar none' (BBN)[2] were promoted to help the responsible running of licensed alcohol premises with a view to reduce crime and alcohol associated incidents. Although BBN's recent self-review in 2017 of the impact of the scheme produced positive feedback (Best Bar None, 2017), a report released by IAS in 2016 titled 'the licensing act (2003): its uses and abuses 10 years on' expressed its concerns

[2] BBN is an accreditation scheme with national awards that aims to promote the safe and responsible running of licensed premises. Backed by the drinks industry and the Home Office the scheme was piloted in Manchester in 2003 and has since been rolled out nationally (Best Bar None, 2019).

over the lack of proper evaluations of voluntary schemes such as BBN; *'The lack of proper evaluations is a particular issue in relation to voluntary schemes. The current understanding of their true impact is extremely poor and the proper evaluation of voluntary schemes is long overdue'* (Foster, 2016). A more rigorous approach to evaluation (e.g., application of the RE-AIM (Reach, Effectiveness, Adoption, Implementation, Maintenance) framework; Jilcott *et al.*, 2007) would better inform future policies and initiatives.

Safe, Sensible and Social also increased the role of the already established Local Area Agreements (LAAs) which aimed to allow them to tackle alcohol related harm at a local level using the individual needs of an area rather than the national targets and statistics of the overall country. The LAAs were introduced so as to prioritise and create partnerships based on local identification of required outcomes and to provide feedback to central government about progress in relation to these. This has allowed for more flexibility and tailoring of an area's needs, in general, and to alcohol-related policy in particular through issues such as: education, voluntary schemes, policing, opening hours, night time levy's etcetera. A problem of the LAAs and indeed, further devolving power to local areas versus centralisation of power is the overall restrictions as to what they can change. Some of the most effective evidence based policies would not be able to be introduced locally, such as minimum unit pricing, reducing the drink driving limit and altering of alcohol labelling and advertising. Another issue highlighted in IAS's review of the Licensing Act with regards to local authority powers is the requirement for more flexibility with the local authority (LA) districts. An example being the introduction of a late night levy charge, with LA's encompassing vastly diverse areas and population within, the late night levy should be specifically used in certain key areas not LA-wide.

Overall, the 2007 strategy had better plans to reduce alcohol related harm, and further focussed on campaigns and more measurable outcomes to do this, relative to the first national strategy. However, the 2007's strategy still ignored evidence based policy making for effective policies that reduce the harm associated with excessive drinking at all levels. A further negative was the lack of

allocated funding to implement these strategies, another key-component for effective policy implementation (Frieden, 2014). Further research was also requested by the government into areas that already have evidence bases. With current information already existing about cost-effective alcohol policies (Babor, 2003), instigating further reviews of NHS spending and effects of pricing effectively delayed the implementation of these policies.

Current and future alcohol policy: public health's continuing battle.

Five years later, with a new Lib Dem/Conservative coalition government in power, a new national strategy was released. 'The Governments Alcohol Strategy' was published in 2012, similarly to previous strategies the main focus of the strategy was tackling alcohol related crime and disorder, binge drinking and under-age drinking (HM Government, 2012). The key difference this strategy brought forward was the desire to reduce the availability of cheap alcohol, citing the evidence that an introduction of a minimum price per unit significantly reduces alcohol harm. Minimum unit pricing (MUP) was called for by the government strategy, to be set at 40p/unit, less than the 50p/unit suggested by public health professionals. Despite this, there was a positive response from public health bodies, one such being The Royal College of Physicians (RCP) who said "The RCP has long called for the introduction of a minimum unit price (MUP) for alcohol, which the evidence tells us will reap significant health benefits across the population. While the RCP has called for a 50 pence MUP, we support the government's intention of tackling cheap alcohol" (Institute of Alcohol Studies, 2012, p.1). Other aspects of the strategy that were praised were the increased powers to local areas to further tailor the regulations for individual areas depending on their requirements, allowing a re-balance of The Licensing Act (2003). The ability for areas to subject their clubs and bars to designated opening hours and incur night-time levies to support local policing is positive in controlling alcohol related harm but both still have their limitations as discussed previously.

One of the key criticisms of this strategy, which is still an on-going discussion today, is the U-turn on the implementation of MUP put forward and backed by the government and Home office in this

strategy. In 2013, a year after the release of the national strategy, the government announced that there was little evidence to suggest that MUP would decrease alcohol harm and that it would punish those who drank 'responsibly'. Alongside shelving MUP, a ban on multi-buy promotions was also rejected. This was strongly condemned by public health organisations, including PHE who issued a statement in response "Public Health England shares the disappointment of the public health community that the introduction of a minimum unit price (MUP) for alcohol is not being taken forward at this point, although it recognises that this remains under active consideration" (Public Health England, 2013, p.1). With evidence in support of MUP and backed by public health bodies, the question of the over involvement and influence that the alcohol industry has over national alcohol policy is highly contentious. In 2014, Lyness and McCambridge published 'The alcohol industry, charities and policy influence in the UK' where they reviewed data on alcohol charities, their backers and their involvement in policy. It was found that the most funded charities, such as Drink Aware, are funded almost solely by drinks industries and are also involved in consultations on policy making. Further to this, the BMJ launched an investigation after the government shelved MUP which revealed that there were at least 130 evidenced meetings between the Department of Health and industry representatives, some of which were after the close of consultation on MUP levels and were found to have encouraged the industry to present and push for alternatives to MUP (Gornall, 2014).

Another controversial focus of the strategy was the Responsibility Deal (RD). The RD was designed to further encourage the government and public health professionals to work with the alcohol industry and businesses to promote public health goals. It sets out a series of non-binding pledges with the aim to reduce harm; however, the voluntary scheme was boycotted by six major public health organisations in the alcohol field at its launch. This was due to the pledges being initiatives similarly aligned to industry supported policy, known to have limited efficacy on alcohol related harm alongside unclear targets (Hawkins, Holden and McCambridge, 2012; IAS, 2015). In 2013, when the MUP was shelved, the majority of the remaining public health bodies within the RD withdrew,

accusing the RD of undermining public health policy and viewing the pledges as a substitute for actual legislation and commitments outlined in the 2012 strategy (IAS, 2015).

Criticisms of the inconsistencies between an evidence based and industry influenced approach prompted an independent strategy to be compiled in 2013. 'Health First' was developed by a coalition of 70 health organisations, presenting a national strategy which included a series of evidence based policies focussing on pricing, labelling, advertising/promotion, treatment, interventions, campaigns and licensing (Univeristy of Stirling, 2013). It compiled a 'top 10 recommendations' list to assist the government with the development of future alcohol policy, alongside a recommendation that industry only be involved in harm reduction as 'producers, distributers and marketers' with no involvement in the alcohol policy development process or health promotion (Will, 2013). The independent strategy was released with the aim to encourage the government to adapt its current approach to policy and assist in using evidence to back policy ideas.

Despite the release of Health First, there has been no specific national alcohol strategy since the one published in 2012. In a 2015 report reviewing the four nations' alcohol polices, policy relevant to England was the least evidence based - a vitally important component for successful policy implementation (Frieden, 2014; Fitzgerald and Angus, 2015). The most recent alcohol update came in 2016 and was announced under the 'Modern Crime Prevention Strategy' which continued to commit more power to LA's and police to equip them with the right powers to adapt their local areas as needed (HM Government, 2016). The strategy had little to no update on public health and treatment aspects of the alcohol policy other than a continuation of current systems, with PHE still leading on health and prevention. The 2016 update also further supported Industry led schemes such as BBN and Challenge 25[3], promoting education as the way forward for alcohol harm reduction;

[3] Challenge 25 is a scheme run by the Retail of Alcohol Standards Group who represent alcohol retailers and is aimed at anyone under the age of 25 but over 18, encouraging them to carry certified ID for purchasing alcohol so to decrease under-age sales (Drink Aware, 2019).

continuing the disconnect between evidence based practice and maintaining the question of industries over-involvement.

In May 2018, The Parliamentary Under-Secretary of State for Health and Social Care, Steve Brine, announced that the government was developing a new alcohol strategy, there has since been no mention of when this strategy will be published or its contents. In the current climate of British politics - with 'Brexit' being the key focus - policy making has been largely put aside, although it has also allowed the government to avoid and delay tricky decisions. In recognition of the requirement to advise and encourage the government, an 'Alcohol Charter' was released in October 2018. Published by the Drugs, Alcohol and Justice Cross-Party Parliamentary Group and the All-Party Parliamentary Group on Alcohol Harm, with input from multiple public health organisations, similar to Health First (2013), the charter aimed to highlight the importance of a new national alcohol strategy. It outlined what the national strategy would be required to do by encouraging the government to use the 2016 PHE review of policy effectiveness and cost-effectiveness to inform its policy decisions, and focus on key factors that overall would; improve support for those in need, protect public health and focus on alcohol related harm (including crime and disorder) (APPG, 2018).

In sum, the literature has demonstrated that contemporary alcohol policy has overwhelmingly focussed on underage, binge and AUD. Alcohol strategies have often omitted and non-problematised the 'missing middle' despite recent changes in drinking trends. Where the government has made suggested policies, these have often been similarly aligned with those of alcohol industries instead of evidence based policies suggested by public health professionals. This study will seek to gain understanding of how this population are/would be affected by some of the current policies (e.g., unit guidelines), and potential future policies (e.g., MUP).

2.3 Normalisation of alcohol consumption

Considering that policy has predominantly focussed on 'problematic' drinking, the central focus population of this study (the missing middle) are not referred to or affected by policy as they are generally considered to be 'non-problematic'. The regular, excessive consumption patterns emerging in this population – which has potential for future harm – are therefore invisibilised which this study argues, could present as habit that has been 'normalised'. Although normalisation as a conceptual tool has been used to theorise a diversity of phenomena this research seeks to expand upon these with specific reference to alcohol consumption. The chapter aims to introduce normative behaviours and normalisation so to use it as a reference point for later discussions, as well as create an understanding of the complexity of alcohol consumption.

Defining normalisation and norms

Normalisation is the process by which a set of values or norms become endorsed and maintained by a group, population or culture (Young, 2015). More broadly, social and cultural 'norms' are blanket terms for multiple aspects of behaviour and regulation that members of the culture or society must adhere to or portray in order for the culture to function (Young, 2015). In 1906, William Sumner published 'Folkways', which was a study of the importance of social norms. The categorisation of social norms that were used in his book are still referred to today, these are: folkways, mores, taboos and laws. 'Folkways', which encompass social conventions and customs, are standards of behaviour that are socially upheld but not morally (Sumner, 1906). 'Mores' are the moral customs and rules set out by a culture, although breaking these –dependent on the culture – may not be illegal, they can cause culture-wide offence (Sumner, 1906). 'Taboos' are very negative norms that are generally prohibited by an entire culture or group and often supported by the law (Sumner, 1906). The final category is 'laws'. Laws are the official rules upheld and regulated by the state, which if people do not conform to state punishment/discipline is used – furthering the internalisation of these types of norms and regulations. Although alcohol consumption is not

necessarily a norm that ensures society still functions, it is still an expected behaviour, and one which has folkways, mores, taboos and laws relating to it. Examples of these are; offering an alcoholic beverage when hosting a dinner (folkway), not being a burden on others when drinking (more), being drunk early in the day (taboo), driving whilst drunk (law). For the purpose of this research, when referring to norms surrounding alcohol consumption, I am particularly focussed on normative behaviours.

Social norms are often distinguished by their prescriptive or proscriptive nature. That is, prescriptive norms dictate how one should behave, whereas proscriptive norms dictate how one should not behave (Pavey, Sparks and Churchill, 2018). These social norms are self-enforcing where members within the society or culture adhere to the norms set out by their group - knowingly or unknowingly – through desire to conform, fear of being outcast or sanctioned or because they like following others (Young, 2015). Bear and Knobe (2017, pp. 25-26) argue that 'normality' is part prescriptive (how one should behave) and part descriptive (what one believes to be statistically average) hypothesising that people's representations of what is normal is a combination of 'statistical and moral learning'. This has particular relevance in the study of alcohol as both prescriptive and proscriptive norms, as well as descriptive, differ between sub-cultures e.g. sport – rugby drinking culture, music – punk, drinking cub-cultures, such as real-ale, cider and gin drinkers. The addition of descriptive (sub-culture based) considerations to an individual's idea of normality creates an even wider distribution of what an individual believes is normal. This further highlights the complexity of studying alcohol consumption and its norms.

There have been multiple theories outlining the process by which norms develop and become embedded in a culture or group. The following section outlines some of these theories and their relevance to understanding alcohol consumption in Newcastle upon Tyne.

Normalisation and deviance – Foucault

Foucault was one of the first to refer to normalisation and does so in Discipline and Punish (1979). He argued that normalisation is accomplished and maintained through discipline, power and knowledge which together play a central role in governmentality by institutions and society. Foucault (1979) believed that power and knowledge were inextricably linked, and that 'power' is not exerted by one source such as an individual but rather that it can be present in everything/anyone. His theory of modern day normalisation and the disciplinary techniques that maintain it was inspired by Jeremy Bentham's 'Panopticon' prison, where the building structure of the prison eluded to constant surveillance, even if none was actually present. This 'surveillance' ensured prisoners behaved regardless of whether anyone was actually there, meaning that the prisoners were self-enforcing their own 'correct' behaviour. Foucault's theory of normalisation was built around the anonymous power of self-discipline, where expected behaviours are up-kept by the individual without specific influence from others for fear of being different or standing out, so normalisation itself highlights deviance.

Although alcohol consumption cannot be explained entirely by Foucault's theory of normalisation – discipline is not used to uphold consumption as a norm - his theory can be applied to aspects of consumption and the drinking cultures that existed in the UK, and specifically Newcastle upon Tyne. Examples of surveillance power and behavioural normalisation can be seen from Newcastle's industrial working history. As discussed in Chapter 2.1 Newcastle's industrial work force were a key asset to the city and those who owned businesses within it. Alcohol was used in multiple ways, by some employers it was used as a tool to gain more from labourers in terms of output – plying them with free alcohol in the hope that their poor work and social conditions would be forgotten and alcohol would stimulate them to keep performing (Berlanstein, 1992). Others used it as a method to further financial benefit of superiors – encouraging consumption using seemingly generous credit deals, which easily amassed and were automatically deducted from the workers' pay

(Berlanstein1992). These drinking establishments (e.g. public houses/canteens) created a sense of solidarity for the employees but were also a space that used the power of 'surveillance' by the employer. Similar to the 'Panopticon', these drinking spaces encouraged employees to conform to the desired behavioural norms of the employer. A part of Newcastle's modern day drinking culture is drawn from this industrial drinking culture that existed and the idea of post-work reward and coming together is still in existence today (Pritchard, 2012).

The specific mechanisms of Foucault's normalisation can be extrapolated and applied to this case study. For example, Foucault's ideas about observation in the form of surveillance by an institution, government, or employers may be similar to how observation by peers operates to influence drinking behaviour in modern western society. Given that drinking is the prevalent norm, those who abstain from alcohol are viewed and highlighted by their group and themselves to be unusual, abnormal or deviant (Romo *et al.*, 2015); avoiding being seen as deviant is what leads to wider engagement in the normative behaviour (drinking).

Moving away from deviance, Parker's 'normalisation thesis'

Whereas Foucault's notion of normalisation is centred on discipline, Parker *et al.* (2002) offer an alternative understanding where normalisation occurs as a result of availability, use, knowledge and acceptance. Although Parker *et al.* are particularly focused on youth drug use, their theory has been positively evaluated and could have application for the study of alcohol use.

Normalisation – according to Parker *et al.* – is a useful tool for assessing alterations in beliefs and behaviours from both a social and cultural perspective. It is fluid, in that, a normalised accepted behaviour can become stigmatised, restricted and not tolerated, and vice versa. Parker *et al.* (2002) identified five important aspects of normalisation (discussed further below), these being; 'availability/access; drug trying rates; usage rates; accommodating attitudes to 'sensible' recreational drug use especially by non-users; and degree of cultural accommodation of illegal drug

use' (Parker *et al.,* 2002). Although this theory was developed for understanding illicit drugs use, and alcohol is not illegal, the key components determined by the normalisation thesis can also relate to the normalisation of alcohol within our society.

However, it is worth noting at this point that Parker *et al.*'s theory assesses the degree of normalisation of illicit drug use and 'use', as already outlined in this study, can be widely interpreted (e.g., occasional, regular). Furthermore, different types of 'drug' could be accommodated to different degrees. This has similarly been a key critique of the theory by researchers such as Shildrick (2002), who argues that Parker's normalisation thesis over-simplifies accounts of youth drug use. Shildrick also critiques the theory for exaggerating the extent of drug use as well as failing to take social inequalities into consideration. Similarly, Fitzgerald *et al.* (2013) also argue that the normalisation thesis overlooks the complexity and variation of social accommodation to drug use, calling for differentiated normalisation theories to be developed or sub-cultural theories. For the context of this research (i.e., alcohol), it is thus important to note that – unlike Parker's normalisation thesis – 'use' is firstly identified as generic 'use' (consuming alcohol in any capacity) and then latterly when using study data, it is specifically identified as 'non-problematic' use (i.e. drinking beyond the guidelines without acute problematic outcomes). The five components in relation to alcohol are discussed in turn below:

Access and Availability

The availability and access to alcohol has increased vastly in recent year in a multitude of ways. Firstly, the amount of on-license locations ranging from bars, cafes, pubs and restaurants – alcohol is readily available in a large variety of establishments. Secondly, the large increase in supermarket and other shops obtaining off-licences – with England in particular having no cap on the timings of alcohol sales – alcohol is available to purchase 24h/day in many locations. This leads to the third point on accessibility – which is the price. Alcohol has no minimum price for which it can be sold at, with a large increase in supermarket alcohol sales, the price of buying alcohol has been driven down

– a 2017 report calculated that off-trade beer is 188% more affordable than in 1980 and wine/spirits 131% (Institute of Alcohol Studies, 2017). In short, alcohol is easily accessible and inexpensive making it widely available and therefore – making use easier

Trying rates

Due to the legality of alcohol and its well-entrenched presence within society, alcohol trying rates are very high. A 2016 NHS report found that 73% of fifteen year olds had ever tried an alcoholic drink – it can be hypothesised that this would be even higher for adults (NHS National Statistics, 2016). The most recent statistics suggest that 20.4% of the adult population described themselves as teetotal – suggesting that the rest of the population consume alcohol to some degree (ONS, 2017) – the vast majority. Considering the high trying rates, this is another factor that points to alcohol's normalisation using this theory.

Recent and regular use

A recent sample showed that 57% of the UK population reported that they had consumed at least one unit in the week before the survey (ONS, 2017). This data provides evidence that for many individuals, alcohol use is recent. Given that over many surveys alcohol use has remained high, this would also suggest individuals use it regularly. Together, regular and recent use would, according to Parker and colleagues, contribute to normalisation of alcohol.

Social accommodation - especially by non-users

The extent to which those who do not drink (permanently, temporarily, or in different ways) accommodate those who do drink is not of particular relevance for alcohol consumption due to alcohol consumption being by far the prevalent behaviour. That is, drinkers (the majority) do not need to be tolerated by non-drinkers (the minority). However, this component could also be used to evaluate accommodation of excessive drinking where those who do not drink or are drinking within the guidelines have to put up with excessive, binging or problematic drinking. A report by the

Scottish Social Attitudes Survey found that the majority of people disapprove of excessive drinking, with only 19% reporting that getting drunk on weekends is 'perfectly acceptable' (Sharp, Marcinkiewicz and Rutherford, 2014, p. 11). This suggests that there are some limitations to the extent of social accommodation to alcohol use – especially excessive, problematic use - however, use itself is socially accommodated.

Cultural accommodation

Alcohol has long been embedded in cultures all over the world in a multitude of practices, ranging from social lubrication to religious occasions and celebratory events (Marsh, Fox, & Morris, 1998). Cultural accommodation of alcohol in the UK is wide-spread. Sponsorship and advertisements, daily mentions on television, radio and social media, and the general presence of alcohol in our daily physical environment are only some examples of alcohol's –rarely disputed - omnipresence in our culture. Alcohol's widespread visibility suggests its widespread accommodation – there are very few environments in which alcohol is not tolerated and many in which it is promoted.

Based on the measures set out by Parker *et al.*, it can be said that alcohol consumption is normalised within our society. Theoretically, then, altering some of Parker's components should reduce the degree to which alcohol is normalised. However, due to alcohol's legal and widely accommodated nature, and as previously stated above, there are many factors that could arguably influence each of the five components when considering this model for use with alcohol consumption. To provide a broad framework for considering the influences on social and cultural accommodation, the socio-ecological framework is used (Sudhinaraset, Wigglesworth and Takeuchi, 2016, see next section). This thesis integrates the two theoretical perspectives (the socio-ecological framework and Parker *et al*.) to examine the levels at which normalisation occurs, attempting to respond to previous criticisms (e.g., Fitzgerald, Mazerolle, & Mazerolle (2013)) that factors that affect social and cultural accommodation are not considered thoroughly in previous research. The socio-ecological framework and its integration with Parker's ideas are discussed in more detail below.

Underpinning normalisation – the socio-ecological framework

As stated - cultural normalisation of alcohol is not a new notion. This research argues that, in the UK, alcohol is embedded in our day-to-day lives to the extent that the vast majority do not notice its omnipresence, and there are few who challenge 'non-problematic' drinking. Alcoholic brands regularly sponsor major events and sport, whilst entertainment (e.g., television shows, radio) glorifies alcohol consumption. The constant re-enforcement and endorsement of alcohol's existence, accessibility, and inexpensive nature leads our environment and our culture to be labelled 'alcogenic' (e.g., Hill, Foxcroft and Pilling, 2018; Sureda *et al.*, 2018). In sum, drinking alcohol often and drinking over the guideline amount, have become a norm supported and reinforced by environmental conditions as well as social conditions.

This alcogenic environment operates across many levels, with each affecting existing social conditions and norms. By applying one pervasive model of these influential levels, the socio-ecological framework (Sudhinaraset, Wigglesworth and Takeuchi, 2016), we can see how alcogenic normalisation can happen and how it could be used within Parker's normalisation theory. Each level is explored in more detail below.

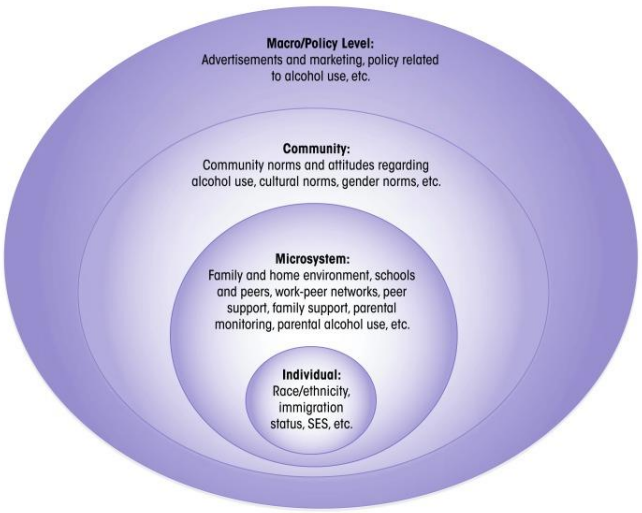

Figure 1: A social-ecological framework for explaining influences on alcohol use (Sudhinaraset, Wigglesworth and Takeuchi, 2016).

Macro Level

Policy and legislation of alcohol can have an effect on the external, alcogenic, environment that cultures exist in. Marketing and licensing factors (e.g. advertisement, accessibility, affordability etc.) are predominantly controlled at a macro-level and can influence norms of the community, but also the individual and the micro systems. This can be seen in multiple studies where factors such as accessibility and promotion, in alcogenic environments have been associated with an increase in hazardous drinking (Huckle *et al.*, 2008; Babor *et al.*, 2010; Sureda *et al.*, 2018). The influence of policy was previously discussed Chapter 2.2 however it is important to note that with regards to Parker's theory – policy and legislation with the examples given above have a big influence over multiple components; specifically access/availability, and cultural accommodation.

Community

Moving inward one level, community norms and attitudes (cultural or sub-cultural norms) toward alcohol use can shape the beliefs, attitudes and consumption behaviours of individuals within the community. It is known that community norms and attitudes influence both micro-systems and individuals (Sudhinaraset, Wigglesworth and Takeuchi, 2016). The community itself is influenced by multiple factors, history of the area being one, but also macro-level factors such as policy and legislation. As previously discussed in Chapter 2.1, Newcastle's history and recent regeneration has allowed it to market itself as a 'leisure city', creating a community focused around the food, entertainment and alcohol industries. The city-wide focus and acceptability of alcohol leads Newcastle to be an alcogenic environment, which could further normalise alcohol use and potentially, misuse. This alcogenic environment provides cultural accommodation, accessibility and availability of alcohol and potentially increases use – all components that promote normalisation as per Parker *et al*.

Microsystem

Even more proximal to the individual, the microsystems of the socio-ecological framework are networks and environments that immediately surround the individual, for example family, home, work-peers, peer support, school etcetera (Sudhinaraset, Wigglesworth and Takeuchi, 2016). This microsystem and its norms and attitudes can be influenced by the community they nest within. It is well researched that for young adult drinkers, the familial influence of alcohol use weakens and peer influence increases with age, resulting in the likelihood of increased drinking to 'fit in' (Borsari and Carey, 2001; Schulenberg, 2002). There is limited research however on the influence of peer and work networks on adult drinking, and whether 'peer-pressure' still exists amongst older age groups. As previously outlined in this chapter, normalisation highlights deviance (Foucault, 1977) so individuals would want to conform to a set of norms laid out by their microsystems. The focus of this study is working adults, so micro-systems like work and peer networks surrounding an individual are anticipated to be stronger influences than parental family. If those microsystems endorse or partake in regular consumption of alcohol, the individual is also more likely to consume alcohol as the norms and attitudes of their networks influence that of the individual.

When considering micro-systems in relation to Parker's components, the influence of these micro-systems could be said to be contributing to access and availability whether through traditions such as gifting alcohol, celebratory events or even something as mundane as serving drinks with dinner. Social accommodation – by both drinkers and abstainers - is also affected by micro-systems, however, arguably the most direct component influenced would be actual alcohol consumption (regular/recent consumption).

Individual

Lastly, it is important to understand that there are also many individual level characteristics that can influence an individual's attitude and behaviour toward alcohol consumption (Gruenewald, Remer and LaScala, 2014). This can include, for example, the individual's demographic, social and psychological circumstances – which are also all inextricably linked to their wider eco-systems

(Vantamay, 2009; Gruenewald, Remer and LaScala, 2014). This further highlights the complexity of alcohol consumption as these factors and levels are difficult to separate due to the fact that they co-produce each other. It is therefore necessary for smaller, more focussed studies exploring behaviours and attitudes within communities, cultures and sub-cultures to be undertaken.

These complex cultural influences on alcohol consumption, especially in adults, are relatively under-researched. Most research focuses on single determinants in isolation; policy, co-morbidities or when looking at cultures, under-age, youth or binge drinking (Ling *et al.*, 2012; Muhlack *et al.*, 2018). Spanning the levels of the socio-ecological framework this research will therefore explore one specific cultural environment, Newcastle upon Tyne, discussing how its history, development and policies may have influenced its alcogenic environment.

The importance of the 'individual' in understanding alcohol behaviours

There is a large body of research that explores alcohol use in general. This study does not research the effects of alcohol; therefore papers regarding the effects of alcohol (e.g., on health outcomes or disease risk) will not be reviewed in-depth here. Instead, this study focuses on predictors of alcohol use, more specifically, psychosocial factors that predict alcohol use. A psychosocial factor is generally a combination of social factors (societal level factors that may influence individuals) and psychological factors (individual level processes/understanding that affect one's mental state) (Stansfeld and Rasul, 2007). However, the term 'psychosocial' could also imply that the overall effect of social factors (e.g., deprivation) on an individual can be mediated through an individual's psychological understanding and mental state (Stansfeld and Rasul, 2007). This strengthens the argument for exploring both in tandem.

Psychosocial predictors of alcohol abuse have received wide-spread attention, ranging from those that are predominantly societal factors (e.g., deprivation) to those that are predominantly experienced and expressed at an individual level (e.g., mental health). Beginning with social factors,

some of the most commonly explored determinants are factors such as socio-economic status (Van Oers *et al.*, 1999), unemployment (Popovici and French, 2013), and homelessness (Fountain *et al.*, 2003). Some individual-level, or psychological factors have also been linked with increased drinking, for example; depression (Boden and Fergusson, 2011); and stress (Conway *et al.*, 1981).These are sometimes a result of social conditions, which suggests a pathway in which social factors can affect individual-level factors, which in turn can affect alcohol use/abuse.

This is the approach adopted in the present study wherein we explore social (e.g., local culture, environment, occupation, and economic factors) along with individual-level factors (e.g., mental health, attitudes, beliefs and motives) that might influence both drinking behaviour but also how any attempt to modify this is viewed. It is already known through national government data that working aged adults are starting to drink more frequently than other groups – this frequency tends to increase with age and salary (Office for National Statistics, 2016). It is not known however, *why* these individuals are drinking in this way. In this study, common predictors of alcohol use such as mental health and income are included, alongside areas such as attitude and motives. Rather than looking at each factor in isolation, links between factors and the social and cultural context of the participants' experiences will be explored. This will enable the study to determine whether individuals drinking hazardously are doing so for previously evidenced reasons (e.g., mental health), or whether other influences are more potent in a working adult population.

The psychosocial factors of interest in this study are beliefs, attitudes, and motives. Beliefs were selected as one factor to focus on due to their widespread use in behaviour prediction research (e.g., the Health Belief Model; Rosenstock, 1974). In the context of this study, beliefs were used to assess both the acceptability of specific drinking norms (e.g., solitary drinking) as well as an individual's perception of other demographic groups (e.g., does the individual believe they drink more responsibly than younger people). Beliefs are an outcome of a multitude of factors – the socio-ecological framework mentioned previously in Chapter 2.3 is an example of the layering of factors

that can influence an individual's beliefs. Considering social norms are beliefs which are part prescriptive and part descriptive (Bear and Knobe, 2017) researching an individual's beliefs can aid the prediction of their behaviour but also help understand the social norms which they are adhering to – or perceive to be true.

Similarly, beliefs also underpin attitudes, which is another important element for understanding behaviour. The Theory of Planned Behaviour (TPB; Ajzen, 1991) is one of the most widely used psychological theories for understanding behaviour. Its uses encompass many areas, for example, physical activity (Alselaimi, 2010); conservation (Miller, 2017); driving (Forward, 2009); and health (French and Cooke, 2011), to name a few. According to the TPB, beliefs, and attitudes are key components that can predict an individual's behaviour. Attitudes (which are formed by behavioural beliefs) are defined in the theory as "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question" (p. 188; Ajzen, 1991). An individual's 'intention' (motivation) to carry out a behaviour is influenced by these attitudes, beliefs and subjective norms. Generally, it is hypothesised that the stronger the intention (motivation) then the more likely the behaviour is to be carried out (Ajzen, 1991). The present study assesses individual's attitudes in order to determine the degree to which they are inclined or disinclined towards interventions – either for themselves, peers or others.

The final component explored in depth in this study is motives. Motives – the reasons for doing something - are generally considered to be the final point in the prediction of behaviour (Cox and Klinger, 1988). Motivational research in alcohol proposes that an individual's motives are forged from the perceived outcomes that alcohol will have on that individual (Cox and Klinger, 1988). They are therefore an established and important predictor of alcohol use, which has seen the development, revision and validation of tools for determining the drinking motives of individuals, for example, the Drinking Motives Questionnaire (DMQ; Cooper, 1994). Studying an individual's motives

is therefore an important aspect of understanding an individual's final decision on whether to drink alcohol or not.

To summarise, beliefs, attitudes and motives are all important predictors of behaviour, but we know little about their role in relation to alcohol consumption in working adults. We know that the 'outcome' behaviour of working adults is that they are increasingly drinking over the guidelines, and more so in sub-groups of working adults (e.g., those that earn more; Office for National Statistics, 2016). It is important to then use behavioural predictors (i.e., beliefs, attitudes and motives) to work backwards from this outcome, to establish *how* and *why* working adults are drinking more. This work will also will seek to determine if alcohol has been normalised amongst this population as per the theories hypothesised above. Interpreting the results from this study with reference to the socio-ecological framework along with Parker's ideas of normalisation will help inform how best we might engage and intervene with individuals who live and work in this; and potentially similar, alcogenic environments.

Summary and research questions

Reviewing Newcastle upon Tyne's historical culture, changing population demographics and contemporary alcogenic environment has demonstrated that it offers opportunities for novel empirical and theoretical insights into alcohol consumption in this under-researched group. Furthermore, Newcastle and its population are still expanding, with Newcastle one of the few cities in the North East that is not in decline in this respect. Considering that this growth and job creation will expand the working adult population even further in the region, the importance of understanding this sub-group will also continue to increase.

Alcohol policy has been used for centuries to attempt to modify drinking habits and outcomes in the UK. However, current alcohol policy is outdated, and is veering further from the evidence base provided by research. Policies (e.g., MUP) that have been endorsed by public health professionals have still not been implemented, education campaigns (e.g., Know Your Limits) are continuing to be rolled out despite scepticism over their impact, and the decentralisation of power to local areas is reducing governmental responsibility. Working aged adults are not a focus in policy or research despite the knowledge that their drinking is increasing compared with other sub-groups. It is therefore important to ascertain the effectiveness and reach of current policy (e.g., unit knowledge) on working adults and determine what the attitudes are toward intervention in this sub-population.

From the literature it can be said that normalisation has been used a conceptual tool in a multitude of practices (e.g., schools, prisons, drug use). Foucault's theory of normalisation was rejected for its use in alcohol due to the lack of discipline present to upkeep alcohol as a norm. However, Parker *et al.*'s normalisation theory, which applies to the normalisation of drug use, could be applied to argue that normalisation of alcohol has occurred in Newcastle Upon Tyne. Further to this, this thesis proposes that normalisation of excessive (above guidelines) 'non-problematic' drinking, has also occurred. This study will apply theories of normalisation and the socio-ecological framework to

discuss the degree to which alcohol has or has not been normalised in Newcastle's working adult population.

Psychosocial factors (e.g., mental health, poverty) are well researched areas in the field of alcohol. Some individual level factors, such as beliefs, attitudes, and motives are known to be predictors of behaviour with regards to alcohol; however there is little research on their role in relation to working adults' alcohol consumption. The overall aim of the present study was therefore to measure core predictors of behaviour (i.e., beliefs, attitudes and motives concerning alcohol) in working adults to understand how these influence drinking habits. Theories of normalisation and the influence of the broader social environment will be applied to determine whether alcohol consumption, and excessive drinking, have been normalised in working adults.

To address this research aim, drawing from the literature discussed in this chapter, the following objectives were pursued:

1. To describe working adults' alcohol-related beliefs, motives, drinking behaviours, and attitudes towards intervention.
2. To test for relationships between continuous demographic factors (i.e., age, physical and mental health) and alcohol-related variables (i.e., motives, attitudes, consumption) in working adults.
3. To test for differences between categorical demographic factors (i.e., sex, children (yes/no), salary range, occupational classification) and alcohol-related variables in working adults.

The following chapter, Methods, will outline the methods used in the design, distribution, collection and analysis of the data for this study.

Chapter 3: Methods

This chapter outlines the process by which the research was designed, the sample recruited and how the research was delivered. It also gives an overview of the processes used for data analysis post collection.

Research design

This study adopted a positivist perspective using a quantitative approach to data collection and analysis. A positivist approach was chosen as the research aimed to understand the behaviours of working adults' alcohol consumption as a group, attempting to produce a generalisable understanding of participants with shared characteristics (Dudovskiy, 2018). A quantitative approach allows for the collection of large amounts of data which can easily be compared using statistical analysis. In particular, this approach allowed the researcher to statistically examine and test patterns, differences and relationships between variables of interest. Strengths of this method include the ability to control (limit) the focus of the study and the topics data is collected on. Negatives to a quantitative approach are that the direction of the research is less iterative and that quantitative data can sometimes inhibit in-depth analysis of meanings and values beyond those explicitly asked about in the questions (Rahman, 2016).

This study used a cross-sectional (one point in time) self-report questionnaire for collecting data from participants. A cross-sectional study was chosen as it allowed for fast and easy data gathering without extensive observations of groups over a period of time, this can however produce some biases due to changing trends over time which is difficult to capture at one time point (Setia, 2016). Although the questionnaire was cross-sectional, it also asked retrospective questions of the individual so to gain a better average of their recent/current drinking beliefs, habits and motives, limiting the amount of bias that it may produce.

A self-report questionnaire was chosen due to its ability to easily and quickly measure participants' subjective beliefs, behaviours and motives of alcohol consumption (the specific objectives of the research) without having to use a more lengthy process such as observation (Hoskin, 2012). However, there are some negatives to self-report questionnaires that have the potential to affect the data collected; each of these is discussed below.

Honesty

The first of these negatives is the reliance on the participant to be honest. It is known that with certain topics such as drug use and alcohol consumption an individual is less likely to be honest than in a more benign topic such as caffeine intake (Hoskin, 2012). However, evidence also suggests that this is less likely to happen if the participant feels assured that the information is confidential and for research purposes (Del Boca and Darkes, 2003). Similarly, introspective ability (the degree to which someone can judge their own understanding and thinking) can also affect the reliability of answers given, even if the participant is attempting to be honest and accurate (Hoskin, 2012). Despite honesty being a persistent challenge, self-report research is widely and successfully used in other sensitive research areas as alternatives are limited.

Understanding

The participants' understanding of questions and misinterpretations can also affect the responses given. Self-report questionnaires negate the need for the researcher to be present when completing the questionnaire, although this allows for greater sample size, the respondent cannot clarify questions before answering. This effect can be reduced by piloting the questionnaire before releasing it to the full sample. However, even prior to piloting, careful consideration was given to phrasing of questions, for example, for the question 'On average, on how many days do you drink alcohol in a week?' it was important to phrase this very clearly, especially with using the word 'average'. For this study, a pilot was undertaken using colleagues, peers and other university researchers; no issues of understanding were reported other than one individual being uncertain as

to why the questionnaire needed to assess health status. The participant information sheet was adapted to ensure it was clear that personal and general health questions would be a part of the questionnaire.

Rating scales and response bias

This study used rating scales to assess beliefs and motives of participants. Although using rating scales can prevent pushing a participant into a false answer (such as with yes/no questions) they can also affect the data depending on whether clustering occurs. Some participants may answer all questions using the extremes of the scales and some many only use the midpoints. Ensuring the scales used in this study were small and had significantly different meanings reduced the likelihood of nonsense distinctions, for example, strongly disagree, disagree, neither disagree/agree, agree, strongly agree (Hoskin, 2012). The majority of scales used were ones that were previously published and validated, or adaptations of published measures. Specific measures are discussed later in this chapter.

Control of sample

The ability to distribute questionnaires online can be positive in that the research is able to reach a wider audience, however it can also skew the sample in several ways. The individuals responding to the questionnaire must be computer literate and have access to online technology – although potentially less of an issue in this study as working adults were the target population. There is also potential for the sample to be skewed. This is in part due to certain types of people being more likely to respond to questionnaires, but also because dissemination of online surveys is often done through personal networks using 'gatekeepers' which has potential to lead to a homogenous sample (Hammersley and Atkinson, 1995). This skewing can be seen in this data set as n=13 of the respondents (total sample; n=113) were dieticians. This is indicative of the difficulty of online questionnaires with regards to being able to control who answers the questionnaire. The conclusions from this study were however relatively unaffected by this skew, items (e.g., unit

guideline knowledge) that were affected were controlled by re-calculating statistics after omitting said group.

Sample

The sample population selected for participating in this study had to be in employment, over 18 years of age and consumers of alcohol. The research is focusing on working individuals for multiple reasons. Firstly, recent statistics from the ONS have found that there is a correlation between the amount of money earned and an increase in number of days drinking in a week and money spent on alcohol (Office for National Statistics, 2016). There has also been a decrease in younger people drinking and an increase in older adults (over 40) drinking (Office for National Statistics, 2016). Therefore a working adult sample holds both empirical and theoretical interest: empirically because data concerning their attitudes and behaviours are limited, and theoretically because models explaining drinking specifically, and normalisation of behaviour more generally, have not considered the nuances of how these are enacted in this group. Sampling this group responds to calls for greater focus on this population to usefully contribute to the literature and understanding of their drinking (Muhlack *et al.*, 2018). Secondly, this population are usually seen as 'unproblematic' due to the nature of them being in work, contributing to taxes, being generally healthier and thus, less likely to be require NHS resources. They are therefore the 'missing middle' and not the usual populations or groups focussed on in research, particularly alcohol research. This population are subsequently 'normal' drinkers, and this normalisation of alcohol amongst this 'non-problematic' population is what this research is aiming better understand.

Location

The North East of England has some of the highest consumption rates of alcohol in the UK. Newcastle upon Tyne was chosen for multiple reasons. The city of Newcastle has been subject to dramatic population changes over the past few decades, from a sharp decline in overall population after the industrial era folded to a recent rapid increase of young working population. This, alongside

Newcastle's industrial history and modern day reputation as a 'leisure city', means that it offers opportunities for theoretical and empirical insights for studying drinking habits, beliefs and motives. Further information on Newcastle's history and present make-up and why it is an interesting location to conduct alcohol research can be found in Chapter 2.1.

Ethics

Prior to commencing the research, ethical approval was sought and given by Durham University's Department of Sociology Ethics Committee. There were limited potential risks to either the participant or the researcher. The unlikely risk identified for participants which may have induced mild harm was if the participant found discussing alcohol upsetting, or if the research brought about discomfort from thinking about general health and well-being. In order to help prevent this mild risk the participant information sheet cautioned individuals of the content of the questionnaire and gave those who may find it distressing the opportunity to not participate (Gray, 2004). The questionnaire also contained contacts for alcohol and well-being support upon completion to assist if any of the questions had upset or required the participant to obtain further knowledge or support. Due to the research being undertaken online with no participant contact or travel requirements and with the questionnaire containing no questions that could invoke distress upon analysis, the risk to the researcher was deemed to be limited. All data in the questionnaire was anonymous, as such there were no circumstances in which the participants' confidentiality would be broken (Gray, 2004). Participants were also made aware from the information letter that once submitted, due to anonymity, there would be no way to withdraw their response from the study. Confirmation of understanding the participant information letter and inclusion criteria was required before the participant was able to complete the questionnaire (Gray, 2004). The ethics forms and approval can be found in Appendix 1.

Recruitment

The target sample was working individuals in Newcastle upon Tyne, with the initial aim to sample a spread of employment sectors to gain representation across the occupations. In order to recruit across a variety of employment sectors, statistics were used from the ONS to determine the occupational make up of Newcastle upon Tyne. This was compiled using the Standard Occupational Classification (SOC) groups, these 10 groups can be seen in Appendix 2. Employers were then contacted at random from each SOC group - using Newcastle businesses yellow pages - with heavier focus on groups that had larger employment statistics in Newcastle e.g. professional occupations (27.5%) (ONS, 2018). Information about the study and a participant information letter were sent in both email and attachment format with a request for it to be distributed amongst their staff if they agreed to do so. The participant letter contained information about the study and the inclusion criteria alongside a link to find the online survey – this letter can be seen in Appendix 3. Due to the categorisation of occupations, most businesses contacted covered a range of SOC groups, for example, a school may contain secretarial, technical, assistant professionals and professionals within it. Overall, around fifty businesses – including schools - were contacted via email. There were three responses agreeing to circulate the questionnaire link amongst their departments within a business. As gatekeepers were used to circulate the questionnaires within businesses, it is impossible to calculate a response rate (that is, we do not know how many people were asked to participate). The questionnaire did not ask how the participant had come to know of the survey, this is something that could be used in future to identify which mode of dissemination was most effective.

The online survey used a platform called Bristol Online Survey. Using an online platform for the questionnaire allowed for implementation of tools to help reduce the amount of missing data and increase the amount of responses. An example of using an online survey to increase the amount of responses is that the tool gives participants the ability to 'save for later' so if they are short on time their answers are saved so to not be put off by having to start over again. Another useful tool is the progress bar which tells participants how far through the questionnaire they are, this prevents losing participants as they can tell how many pages there are, a maximum of six pages is advised (Gray,

2004). Using an online questionnaire for this study helped prevent issues with missing data as unlike paper surveys, settings could be implemented to stop participants entering incorrect data in the wrong question. An example being sex, this question was open but would only accept an alphabetical (text) answer and would have warned the participant of an error if they entered numbers into the question instead. Questions were also tailored to require the participant to answer, not allowing the participant to continue until the highlighted missed question had been answered, which prevented accidental missing data and encouraged the participant to fill out all questions. The only question that was left as optional in this survey was salary to reduce the likelihood of losing participants due to feeling uncomfortable about answering sensitive questions such as this (Gray, 2004).

Questionnaire design

The online questionnaire comprised of five sections, each with its own page for clarity. The five sections and their contents are outlined below.

General Information

This section asked basic anonymous demographical questions including: age, sex, ethnicity, employment and family situation (see Appendix 4 for the full questionnaire). Salary was the only optional question in the study due to its sensitivity so to reduce the potential to lose participants who didn't want to answer the question. For those who chose to report salary (n=110/113) the item was bracketed in £10,000 increments up to £100,000 where after it was labelled as '>£100,000'. This data was collected to enable comparisons between demographic groups with respect to their drinking beliefs, habits and motives.

General Health Question

This general health questions section used the SF-8 Health Survey, a validated and reliable tool that

is commonly used in self-report questionnaires to assess an individual's health-related quality of life (HRQOL). The SF-8 Health Survey is a shortened version of the original SF-36 Health Survey (Ware and Sherbourne, 1992) which was designed to assess health status in clinical practice, health research and evaluations and general population surveys. The shortened version (SF-8), the tool used in this study, has been tested and validated by multiple researchers in a variety of fields (Turner-Bowker *et al.*, 2003; Roberts *et al.*, 2008; Lang *et al.*, 2018). The SF-8 tool focuses on an individual's ability to go about their daily life and to what extent their physical and emotional health affects these tasks. Due to the population of this sample being working adults who are recruited via their work, the assumption is made that the individual's basic physical health is less likely to be very poor than the general population. Due to this assumption, a further 9th question was added to mimic the question; 'During the past 4 weeks, how much did physical health problems limit your usual physical activities (such as walking or climbing stairs)?', which added the word 'advanced physical activities' and gave examples such as; playing sport, exercising and manual lifting (see Appendix 4).This was added to assess other activities that may be affected by physical health but may not have been labelled as 'usual physical activities'. This data was gathered to enable the researcher to have insight into the participant's current health status to determine if their drinking beliefs, habits and motives might be linked to poor health (a pre-researched area) rather than the other factors being assessed. Further to this, the health data may indicate whether or not as a population this group perceived the effects that excessive drinking could have on them.

General Drinking Questions

The general drinking questions to assess an individual's alcohol consumption were adapted from the Alcohol Use Disorders Identification Test – Alcohol consumption questions (AUDIT-C) (Bush *et al.*, 1998). This was adapted from talking about 'number of drinks' to units – an infographic to aid unit calculation was provided for this. This alteration from the AUDIT-C was designed to gain a more accurate number of units consumed by participants in order to directly compare their results to the

UK guidelines (14units) as number of drinks brings challenges to estimating the actual amount of alcohol consumed due to glass sizing and alcohol type.

Personal Beliefs

The personal beliefs section aimed to assess multiple aspects of individual's beliefs in order to analyse and compare these across the demographic in order to understand differences in consumption patterns. These beliefs were about situational drinking acceptability (e.g. solitary drinking, being sick), alcohol interventions, and beliefs about their own demographic or peer group's drinking habits in comparison to others. The statements in this section were based on Novak and Crawford's (2010) Beliefs about Alcohol and the College Experience (BACE), using similar wording but heavily adapting the context for the target participants. An example of a statement used is: 'It is acceptable to drink alone'. The scale used was: 'Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree' this is similar to the one used in the original, where the BACE used all except the mid-point 'neither agree nor disagree'. A mid-point option was added to allow those who felt ambivalent toward a statement to not be pushed into a false answer (agreement or disagreement).

Personal Motives

Participants' motives for consuming alcohol (a key variable for demographic comparison) were assessed using the validated short form version of the drinking motives questionnaire (DMQ-R-SF) (Kuntsche and Kuntsche, 2009). Although primarily aimed at assessing motives amongst adolescents, the DMQ has also been validated for use in older adults (Gilson *et al.*, 2013). This study used the original four factors (social, enhancement, coping and conformity), items and scale. Some of the wording was altered to better identify with adults as opposed to adolescents. An example of this alteration is below.

Original*: 'In the last 12 months how often did you have a drink because it helps you enjoy a party?'*

Altered: *'In the last 12 months how often did you have a drink because it helps you enjoy a social occasion?'*

In addition to these alterations, a fifth factor – normality - was also assessed. The four items used for this factor were assessed for reliability using Cronbach's Alpha, and were deemed reliable; the results of the analysis can be seen on p. 75in the results section. An example of an item assessing normality as a motivation is below.

'In the last 12 months how often did you have a drink because it is part of your routine?'

The full original DMQ-R-SF alongside the altered version for this study can be found in Appendix 5.

Data analysis

Statistical tests were used to determine relationships between whole sample characteristics (e.g. age) and the outcome variables. Tests of difference were also used to compare sample sub-groups on these outcomes. An alpha level of $p \leq .05$ was used as the threshold for significance for all tests.

The statistical test chosen for assessing relationships between two variables was Pearson product-moment coefficient. This test was chosen as it can give an indication of positive and negative correlations between two variables, as well as determining how significant the relationship was. Using Pearson's, in order to have 80% power to detect a moderate correlation (0.5), the conventional target, a sample size of 29 is recommended (Bujang and Baharum, 2016). This study's sample size of 113 exceeds this, providing more power to detect smaller correlations. To determine the relative strength of the correlations, Cohen's standard thresholds were applied: 0.1 for a small/weak correlation, 0.3 for a moderate correlation, and 0.5 for a strong correlation (Cohen, 1992).

The next statistical test used was the one-way between groups analysis of variance (ANOVA). This test was chosen as a way to determine differences between groups which contained more than two

categories (i.e. participants' salaries) with regards to a singular variable (i.e. frequency of drinking). The test can determine whether there were any significant differences between demographic groups' drinking beliefs, habits and motives. Although a one-way ANOVA can technically function with a very small sample size (i.e. as long as the number of participants per group is larger than the number of groups being compared), a larger sample allows the analysis to tolerate issues with distribution (Algina and Olejnik, 2003). Larger samples will also allow for the detection of smaller differences between groups, and produce more generalisable results.

Similarly, the final statistical analysis test used was the independent t-test. This was used to determine any differences between groups of participants and a singular variable (like the ANOVA), however only when there were two categories e.g. sex (female; n=81, male; n=32). To have 80% power with moderate correlation (0.5) a sample size in both groups of 64 is recommended (Cohen, 1992). This research did not meet the recommended sample size however; this threshold is rarely met in published trials.

Chapter 4: Results

The findings from the study are presented in this chapter and divided into the three research objectives outlined in the Literature Review.

Research Objective 1: To describe working adults' alcohol-related beliefs, motives, drinking behaviours, and attitudes towards intervention.

Demographics

The total number of participants was 113; 81 (71.7%) were female and 32 (28.3%) were male. The ages ranged from 18 to 60 years with a mean age of 36.5 years (SD= 10.43). In terms of ethnicity, 97.3% (n=110) of the participants reported being white, British or White-British; the remaining 3 participants reported other ethnicities. This is less diverse than Newcastle's 2011 census data which reported this figure to be 81.9% (Office for National Statistics, 2011). Of the 113 participants, 32 (28.3%) had one or more dependent children under the age of 14 years.

Occupational information

Occupations reported were categorised according to the Standard Occupational Classification system (SOC). There was no missing data however 1.8% (n=2) of the entries were unable to be classified under using SOC due to lack of specific information provided about their occupation. The split of the sample into the SOC categories can be seen below in Table 2.

Table 2: **Occupational demographics of sample**.

SOC Category	Frequency	Percentage of Sample (n=113)
Military	1	.9

Managers, Directors and Senior Officials	9	8.0
Professional	54	47.8
Associate Professional and Technical	13	11.5
Admin and Secretarial Occupations	22	19.5
Skilled Trades	2	1.8
Caring, Leisure and Other Services	6	5.3
Sales and Customer Service	2	1.8
Process, Plant and Machine Operatives	2	1.8
Unknown	2	1.8

Due to low frequencies in many of the occupational categories, to allow for better analysis, the professional and managerial categories were combined into one group (Group 1) and all other remaining categories were combined into another (Group 2). The two reported unknown occupations were left out of this re-grouping, the frequencies were as follows (n=111); Group 1: 63, Group 2: 48.

Approximate annual salary was bracketed in £10,000 increments and was optional to report, 2.7% (n=3) chose not to respond giving a sample total of n=110. As can be seen in Table 3 below, over 50% of the participants between £20-40,000/annum, and around 16% of the participants earned £50,000 or over.

Table 3: Salary demographics of sample.

	Frequency	Percentage of Sample (n=110)	Cumulative Percentage
<£10,000	4	3.5	3.6
£10-20,000	14	12.4	16.4

£20-30,000	35	31.0	48.2
£30-40,000	27	23.9	72.7
£40-50,000	12	10.6	83.6
£50-60,000	11	9.7	93.6
£60-70,000	1	.9	94.5
£70-80,000	2	1.8	96.4
£80-90,000	2	1.8	98.2
£90-100,000	1	.9	99.1
>£100,000	1	.9	100

Health and well-being

Participants reported a good level of both mental (M = .947; SD = .678) and physical (M = .846; SD = .743) health (note, closer to zero indicates a very good level of health and 4 very poor health).

Alcohol understanding

In answering what the national guidelines for weekly alcohol consumption were, the total sample of 113, 33.6% (n=38) reported the correct UK guidelines for male weekly alcohol consumption (14 units), and 35.4% (40) reported the female guidelines (14 units) correctly. However, the sample contained a number of healthcare professionals (15 dieticians/pharmacists) who might reasonably be expected to have a higher knowledge of these guidelines than the general public. When removed from the sample (n=98), 23.5% (n=23) reported the correct guidelines for males and 25.5% (n=25) reported the correct guidelines for females. This is higher than previously reported recall (e.g., 8%, (Rosenberg *et al.*, 2018). There was however another cluster of responses for male weekly consumption at the old guideline level of 21 units with 13.2% (n=13) of the adjusted sample selecting this answer. There were no distinctive differences (e.g. age, sex) between this sub-sample and the overall sample to explain this clustering around the old guidelines.

Personal drinking habits

The sample reported drinking on a mean of 2.2 (SD: 1.76) days a week, consuming a mean of 8.2 (SD: 6.23) units on each drinking occasion, giving a mean weekly consumption of 18 units. A total of 49.6% of the participants drank over 14units/week. The mean number of days for male (n=32) weekly binge drinking (more than 8 units per sitting) was 1.3 days (SD: 1.43) and female (n=81) weekly binge drinking (more than 6 units per sitting) was .9 days (SD: 1.077). Of the 113 participants 46% (n=52) said their most frequent location to drink was at home, 33.6% (n=38) stated it was bars/pubs, 4.4% (n=5) restaurants and 13.3% (n=15) responded that it was a mix of all of these locations. A total of 3 participants (2.7%) selected 'other'; two of these then specified 'friend's houses' as their drinking location and the final participant reported their drinking location as their local rugby club. The type of alcohol most frequently drank by the sample was wine (37.2%, n=42), 31% (n=35) chose beer/lager/cider, 18.6% (n=21) spirits/cocktails, 2.7% (n=3) fizzy wine and 10.6% (n=12) reported that they drank a combination of different alcoholic beverages.

Working adults' beliefs about their drinking relative to others.

Participants were asked about their beliefs about how much they drink relative to both their peers and other demographics groups. When compared with their peers' drinking habits, 16.8% (n=19) believed they (as individuals) drank more than their peers, 40.7% (n=46) believed they drank less and 42.5% (n=48) believed that they drank the same.

Working adults' beliefs about what is acceptable and normal.

The sample (n=113) as a whole strongly disagreed that it is acceptable to be sick or black-out after drinking: M=3.28, SD=.901 and M=3.52, SD=.85 respectively. They also moderately disagreed that it is acceptable to drink alcohol most evenings if it is with food (M=2.46, SD=1.08), and that home drinking is more acceptable than public drinking (M=2.41, SD=.79). When asked if it is acceptable to drink alone the sample tended toward strong agreement (M=1.28, SD=.93).

Perceived drinking habits of other demographic groups

The sample as a whole tended toward disagreement that their peers drank more than other groups, and that they drank more responsibility than those of a younger age and those who do not work. There was a stronger tendency toward disagreement that they drank more responsibly than those on lower pay. All mean scores for these beliefs fell between 2 (neither agree nor disagree) and 3 (disagree) (See Table 12 below).

Table 4: Sample perceived drinking habits of other demographic groups.

Belief	Mean (M) Strongly Agree=0 Strongly Disagree=4	Std. Deviation (SD)
People that work drink more responsibly than people who don't work	2.46	.86
'My age' drink more responsibly than younger people	2.12	1.00
My peer group drink more than other peer groups	2.27	.88
'People like me' drink more responsibly than those on lower pay	2.92	.81

Motives for alcohol consumption in working adults

Motives for alcohol consumption were assessed using an adaptation of the Drinking Motives Questionnaire – Short Form (DMQ-SF) where multiple questions for each factor were asked to calculate an overall mean for each of the motivational categories. The original items and factors along with the adapted questions, items and addition of the normality factor can be found in Appendix 5. Each category was assessed for reliability using Cronbach's Alpha a tool which measures internal consistency of items within a group. All the categories except from 'Enhancement' achieved

a result of greater than 0.7 – indicating reliability between the adapted items. Upon further analysis to check the result from 'Enhancement' (.634) which can be seen in the table below, there was no individual item that if removed would significantly increase the reliability, as such, all items were kept for this category as with the other four categories.

The sample as a whole tended to drink alcohol half of the time for social and enhancement purposes (M_{social} =2.30; $M_{enhancement}$ =2.10) some of the time due to routine and normality and coping ($M_{normality}$ =2.71; M_{coping}=3.22) but almost never/never to conform (M=3.53).

Table 5: Sample descriptors for drinking motives.

	Social	Coping	Enhancement	Conformity	Normality
Mean (0=Almost Always/Always 4= Almost Never/Never)	2.30	3.22	2.10	3.53	2.71
SD	.96	.87	.73	.71	.93
Reliability (Cronbach's Alpha)	.776	.845	.634	.787	.707

Attitudes of working adults with regards to state intervention

The sample as a whole tended to agree that they should be entitled to choose how to spend their earned money, but tended toward disagreement that they would drink less alcohol if it cost more. They also tended toward disagreement that the government should not intervene in the drinking of people like themselves, and slightly more strongly disagreed that the government should not intervene in anyone's drinking. The most strong disagreement (M=3.00) was that drinking habits of

the participants were not an issue for the health service. In other words, participants as a whole tended to be pro-intervention.

Table 6: Sample descriptives regarding beliefs about state intervention.

	Government should not intervene in people like me	Government should not intervene in anyone's drinking	I would drink less if alcohol cost more	People like me who earn are entitled to choose how to spend that money	Drinking habits of people like me is not an issue for the health service.
Mean (n=113) (0=strongly agree; 4=strongly disagree)	2.48	2.81	2.67	1.12	3.00
SD	1.12	.96	.99	.94	.93

Research Objective 2: Testing for relationships between demographic factors and alcohol-related variables.

Tests of relationships were used for continuous demographic variables (i.e., age, and physical and mental health score). The statistical test chosen for assessing relationships between two continuous variables was Pearson's product-moment coefficient. This test was chosen as it can give an indication of positive and negative correlations between two variables, as well as determining how significant the relationship was.

Mental and Physical Health and Alcohol Consumption

The relationship between mental and physical health and both frequency of alcohol consumption (days per week) and average amount (units) consumed on a day when drinking alcohol was investigated using Pearson product-moment correlation coefficient. The mental and physical health of participants was assessed using the SF-8 questionnaire, from which an overall score was calculated for both and utilised in analysis. As expected, there was a significant strong positive correlation between mental and physical health (r=.655, n=113, p=.000). However, there was no significant correlation between mental health ($r_{frequency}$=.115, n=113, p=.226 and $r_{quantity}$= -.055, n=113, p=.562) or physical health ($r_{frequency}$=.114, n=113, p=.229 and $r_{quantity}$ =-.145, n=113, p=.126) with regards to participants' frequency or quantity of drinking.

Age and alcohol-related variables

Age and Consumption: The relationship between age and both frequency of alcohol consumption (days per week) and average amount (units) consumed on a day when drinking alcohol was investigated using Pearson product-moment correlation coefficient. There was a significant but weak positive correlation between age and frequency, r=.206, n=113, p =.029, with increasing age associated with more frequent alcohol consumption. There was a non-significant, negative correlation between age and amount of units drank, r=-.139, n=113, p>.05.

Age and Beliefs about Drinking: The relationship between age and beliefs about what drinking habits are acceptable can be seen in Table 6 below, there was no correlation between age and acceptability of drinking alone or at home. There were significant weak positive correlations between age and opinion of acceptability to black out after drinking and acceptability to drink most evenings if with food, displaying that with increasing age the sample tended to disagree more. There was a significant moderate positive correlation between age and acceptability of being sick after drinking ($p<.01$) displaying that with increasing age the sample tended to disagree more

Table 7: Relationships between age and acceptability beliefs.

	More acceptable to drink at home than public	Acceptable to drink alone	Acceptable to black-out after drinking	Acceptable to drink most evenings if with food	Acceptable to be sick after drinking
Pearson Correlation	-.096	.160	.188*	.233*	.361**
Sig. (2-tailed)	.314	.091	.046*	.013*	.000**
N	113	113	113	113	113

Age and Beliefs about Others: There was no significant relationship between age and beliefs about other demographics alcohol consumption (see Table 13).

Table 8: Relationships between age and perceived drinking habits of other demographic groups.

	People that work drink more responsibly than people who don't work	*'My age' drink more responsibly than younger people*	*My peer group drink more than other peer groups*	*'People like me' drink more responsibly than those on lower pay*
Pearson's Correlation	*.109*	*-.081*	*.102*	*.116*
Sig.	*.251*	*.394*	*.284*	*.223*

Age and Motives: The analysis between age and drinking motives found that there was a significant weak positive correlation between age and normality/routine. This implies that with increasing age the sample are less likely to drink as part of routine. There were also significant weak positive correlations between age and both social and enhancement motives (p=.016 and p=.025) respectively. This again implies that with increasing age the sample were less likely to drink for social and enhancement motives. There were no significant correlations between age and coping or conformity.

Table 9: Relationships between age and drinking motives.

	Social	*Coping*	*Enhancement*	*Conformity*	*Normality*
Pearson's Correlation	*.226**	*.118*	*.211**	*.104*	*.245***
Sig.	*.016**	*.212*	*.025**	*.273*	*.009***

Age and Attitudes towards Intervention: When determining the relationship between age and attitudes toward intervention there was a significant weak positive relationship between age and drinking less alcohol if it cost more (p=.043). This indicates that with increasing age the less likely participants were to agree that a cost increase would reduce their consumption. None of the other intervention questions resulted in any significant correlations.

Table 10: Relationships between age and beliefs about state intervention.

	Government should not intervene in people like me	*Government should not intervene in anyone's drinking*	*People like me who earn are entitled to choose how to spend that money*	*I would drink less if alcohol cost more*	*Drinking habits of people like me is not an issue for the health service.*
Pearson's Correlation	*-.047*	*-1.25*	*.018*	*.191 **	*-.056*
Sig.	*.622*	*.188*	*.849*	*.043 **	*.553*

Research Objective 3: Testing for differences in alcohol-related variables between demographic groups.

Tests of difference were used for categorical demographic variables (i.e., salary range, occupation, children (yes/no), sex). The first statistical test used for this was the one-way between groups analysis of variance (ANOVA). This test was chosen as a way to determine whether or not significant differences existed between groups which contained more than two categories (i.e. participants' salaries) with regards to a singular variable (i.e. frequency of drinking). Similarly, the second statistical test used for this research objective was the independent t-test. This was used to determine any differences between groups of participants and a singular variable (like the ANOVA), however only when there were two categories (e.g. sex).

Salary Groups

Salary and Consumption: A one-way between-groups analysis of variance was conducted to explore the impact of salary on both frequency of alcohol consumption (days per week) and average amount (units) consumed on a day when drinking alcohol. Participants were divided into three groups according to their salary (Group 1: £30,000 or less; Group 2: £30-60,000; Group 3: £60,000 and above). There was no significant difference ($p<.05$) between the three salary groups with regards to frequency nor quantity: $F(2, 107) = .337$, $p=.715$ and $F(2, 107) = .398$, $p=.672$ respectively. Group 1 had the lowest mean for drinking frequency of the three groups but was the mid-value for average units consumed (M=2.06, M=8.37). Group 2 was the mid-value for drinking frequency but had the lowest mean for average units consumed (M=2.34, M=7.56). Group 3 had both the highest mean for drinking frequency and average units consumed of the three groups (M=2.43, M=9.14). Although not statistically significant, there was a mild positive trend between increase in salary and increased drinking frequency.

Salary and Beliefs about Alcohol: A one-way between-group analysis of variance (ANOVA) was conducted to explore the impact of salary on participants' beliefs around acceptability. Salary data

that was collected in the initial demographic section was subsequently divided into three groups for comparative analysis (Group 1: £0-30,000; Group 2: £30-60,000; Group 3: >£60,000). As Table 7 below displays, there was no significant difference between the three salary groups for any of the acceptability questions. Similar means were reported for each salary third, displaying that for this sample salary has no link to a differential in beliefs for acceptable drinking habits and outcomes.

Table 11: Relationships between salary and acceptability beliefs.

	More acceptable to drink at home than public	Acceptable to drink alone	Acceptable to black-out after drinking	Acceptable to drink most evenings if with food	Acceptable to be sick after drinking
M + (SD) £0-30K (N=53)	2.30 (.72)	1.21 (.82)	3.49 (.87)	2.28 (1.06)	3.13 (.92)
M + (SD) £30-60K (n=50)	2.52 (.74)	1.40 (1.01)	3.62 (.78)	2.58 (1.07)	3.48 (0.79)
M + (SD) >£60K (n=7)	2.14 (1.46)	1.29 (1.25)	3.29 (1.11)	2.86 (1.07)	3.29 (1.11)
F	1.360	.542	.630	1.530	2.030
Sig.	.262	.583	.534	.221	.136

Salary and Beliefs about Others: As Table X below displays, there was no significant difference between the three salary groups for any of the comparison against other demographic questions.

Similar means were reported for each salary third, displaying that for this sample, salary has no link to a differential of opinions about other demographics' alcohol use.

Table 12: Differences between perceived drinking habits of other demographic groups by salary.

	People that work drink more responsibly than people who don't work	'My age' drink more responsibly than younger people	My peer group drink more than other peer groups	'People like me' drink more responsibly than those on lower pay
M + (SD) £0-30K (n=53)	2.34 (.81)	2.00 (.98)	2.21 (.99)	2.74 (.86)
M + (SD) £30-60K (n=50)	2.54 (.89)	2.26 (1.03)	2.30 (.79)	3.08 (.78)
M + (SD) >£60K (n=7)	2.71 (.76)	1.86 (.69)	2.43 (.79)	3.00 (.58)
F	1.070	1.130	.267	2.380
Sig.	.341	.326	.766	.098

Salary and Motives: Differentials in salary had no significant bearing on drinking motives. Each of the salary groupings had similar means for each motivation. There were no minor trends found between the salary groupings either.

Table 13: Differences between drinking motives by salary group.

	Social	Coping	Enhancement	Conformity	Normality
M + (SD) £0-30K (n=53)	2.16 (.96)	3.21 (.74)	2.06 (.71)	3.63 (.57)	2.58 (1.00)
M + (SD) £30-60K (n=50)	2.45 (.87)	3.22 (.88)	2.17 (.79)	3.47 (.87)	2.86 (.87)
M + (SD) >£60K (n=7)	2.24 (1.26)	3.63 (.32)	2.11 (.40)	3.43 (.74)	2.89 (.72)
F	1.180	.908	.319	.727	1.280
Sig.	.311	.407	.728	.486	.281

Salary and Attitudes about Intervention: When comparing salary groups and attitudes toward intervention there was no specific trend throughout the salary groups. Those who earned the most (Group 3) as seen in Table 29 below, tended to agree that the government should not intervene in their own, or anyone's drinking and that their drinking habits are not an issue for the NHS, this differs from both of the other salary groups who tended to disagree with those statements.

Table 14: Differences in beliefs about state intervention by salary group.

	Government should not intervene in people like me	Government should not intervene in anyone's drinking	People like me who earn are entitled to choose how to spend that money	I would drink less if alcohol cost more	Drinking habits of people like me is not an issue for the health service.
M + (SD)	2.45 (1.15)	2.72 (.97)	.94 (.77)	2.40 (1.08)	3.04 (.83)

£0-30K (n=53)					
M + (SD) £30-60K (n=50)	2.60 (1.07)	3.04 (.88)	1.36 (1.05)	2.92 (.88)	3.02 (1.00)
M + (SD) >£60K (n=7)	1.71 (1.25)	1.86 (.90)	.43 (.54)	2.86 (.90)	2.71 (1.25)
F	1.930	5.530**	4.870**	3.800*	.373
Sig.	.150	.005**	.009**	.025*	.690

Occupational Groups

An independent t-test was used to explore the impact of occupational classification on both frequency of alcohol consumption (days per week) and average amount (units) consumed on a day when drinking alcohol. As Table 4 below shows, there was no significant difference between the occupational groups with regards to frequency and quantity.

Table 15: Drinking behaviours of sample - quantity and frequency.

	Quantity on a day when drinking (Units/day)	Frequency (days/week)
M + (SD) SOC Group 1 Professional/Managerial (n=63)	7.69 (7.14)	2.24 (1.84)
M + (SD) SOC Group 2 Other occupations	8.56 (4.67)	2.23 (1.67)

(n=48)		
t	-.734	.026
Sig.	.464	.979

SOC and acceptability beliefs

An independent t-test was conducted to explore the impact of occupational classification on participants' beliefs about acceptability. There were no significant differences between the occupational groups with regards to most of the acceptability questions, there was however a significant difference between the two groups with regards to being sick. Despite both groups disagreeing that it is acceptable to be sick after drinking; those in professional and managerial occupations disagreed more strongly than those in other occupational roles, this can be seen in Table 8 below.

Table 16: Differences in acceptability beliefs based on occupation clusters.

	More acceptable to drink at home than public	Acceptable to drink alone	Acceptable to black-out after drinking	Acceptable to drink most evenings if with food	Acceptable to be sick after drinking
M + (SD) Group 1 (n=63)	2.51 (.84)	1.37 (.97)	3.56 (.84)	2.52 (1.11)	3.44 (.74)
M + (SD)	2.31 (.689)	1.19 (.87)	3.46 (.87)	2.35 (1.04)	3.06 (1.06)

Group 2 (n=48)					
t	1.310	.999	.594	.821	2.240*
Sig.	.193	.320	.554	.413	.027*

SOC and beliefs about other demographics

The effect of occupational classification on perceived drinking habits of other demographic groups was analysed using an independent t-test. Similarly to the total sample, both groups tended to be either ambivalent or tended toward disagreement for each of the questions and had similar means for each. When asked if people that work drink more responsibly than people who do not work, those from Group 1 (managerial and professional occupations) tended to disagree more strongly than those from Group 2 (other occupations), the t-test showed the difference between these groups to be significant (p=.001).

Table 17: Differences between perceived drinking habits of other demographic groups by occupational group.

	People that work drink more responsibly than people who don't work	'My age' drink more responsibly than younger people	My peer group drink more than other peer groups	'People like me' drink more responsibly than those on lower pay
M + (SD) Group 1	2.71 (.87)	2.16 (1.04)	2.32 (.86)	3.05 (.83)

(n=63)				
M + (SD) Group 2 (n=48)	2.17 (.73)	2.13 (.94)	2.23 (.93)	2.77 (.78)
t	3.530**	.177	.518	1.790
Sig.	.001**	.860	.605	.077

SOC and motives

The reported motives for drinking alcohol were assessed against different occupational groupings to determine if there was any effect of occupation on drinking motives. As with the whole sample, both groups tended to identify more with social, enhancement and normality motives than coping and conformity. As can be seen in Table 23 below, there was a significant difference between Group 1 (managers and professionals) and Group 2 (other occupations) when analysed using an independent t-test for social motives. Those in other occupations reported drinking more frequently for social motives than those in managerial and professional occupations (p=.043).

Table 18: Differences between drinking motives by occupational group.

	Social	Coping	Enhancement	Conformity	Normality
M + (SD) SOC Group 1 (n=63)	2.47 (.87)	3.24 (.75)	2.14 (.70)	3.62 (.55)	2.76 (.88)

M + (SD) SOC Group 2 (n=48)	2.09 (1.06)	2.98 (1.00)	2.03 (.78)	3.41 (.87)	2.63 (1.01)
t	2.050*	1.470	.791	1.470	.764
Sig.	.043*	.145	.431	.145	.446

SOC and attitudes about intervention

The reported attitudes toward intervention were assessed against different occupational groupings to determine if different occupation groups produced differences in attitudes. As with the whole sample, both groups tended to be pro-interventionist but also believed they were entitled to choose how they spend their money. As can be seen in Table 30 below, there was a significant (p=.009) difference between Group 1 (managers and professionals) and Group 2 (other occupations) upon analysis using an independent t-test when asked if they agreed that the government should not intervene with anyone's drinking. Those in managerial and professional occupations tended to disagree more strongly (M=3.00) than those in other occupations (M=2.52). Both groups tended towards disagreement that they would drink less if alcohol cost more.

Table 19: Differences in beliefs about state intervention by occupational group.

	Government should not intervene in people like me	Government should not intervene in anyone's drinking	People like me who earn are entitled to choose how to spend that	I would drink less if alcohol cost more	Drinking habits of people like me is not an issue for the health

			money		service.
M + (SD) SOC Group 1 (n=63)	2.60 (1.09)	3.00 (.88)	1.14 (.91)	2.79 (.99)	3.08 (.85)
M + (SD) SOC Group 2 (n=48)	2.29 (1.17)	2.52 (1.01)	1.13 (.98)	2.54 (.99)	2.92 (.99)
t	1.450	2.670**	.099	1.330	.933
Sig.	.150	.009**	.921	.186	.353

Children

An independent t-test was conducted to explore the impact of dependent children on both frequency of alcohol consumption (days per week) and average amount (units) consumed on a day when drinking alcohol. A dependent child was defined as one under the age of 14 years and the participant's direct responsibility. There was no significant difference between those who had dependent children and those who did not with regards to either: frequency ($M_{children}$ = 2.66, SD 1.73; $M_{nochildren}$ = 2.05, SD 1.75, t = 1.192, p = .236) or quantity ($M_{children}$ = 7.06, SD 6.66; $M_{nochildren}$ = 8.61, SD 6.04, t = -1.670, p = .098) of drinking.

Children and acceptability beliefs

An independent t-test was conducted to explore the impact of dependent children on alcohol acceptability beliefs. The T-Test found that there was no significant difference between those who had dependent children and those who did not with regards any of the questions of acceptability.

The means of both groups were very similar for each question indicating that having children is not a factor that alters beliefs surrounding what are acceptable and un-acceptable drinking behaviours.

Table 20: Differences in acceptability beliefs based on parental status.

	More acceptable to drink at home than public	Acceptable to drink alone	Acceptable to black-out after drinking	Acceptable to drink most evenings if with food	Acceptable to be sick after drinking
M + (SD) Child. (n=32)	2.41 (.76)	1.28 (.89)	3.63 (.79)	2.53 (.95)	3.44 (.80)
M + (SD) No child. (n=81)	2.41 (.80)	1.28 (.95)	3.48 (.87)	2.43 (1.13)	3.22 (.94)
t	.007	.014	-.811	-.439	-1.150
Sig.	.994	.989	.419	.661	.254

Children and beliefs about other demographics

The t-test found that there was no significant difference between those who had dependent children and those who did not. The means of both groups were very similar for each question indicating that having children is not a factor that alters the sample's opinions about other demographics' alcohol use.

Table 21: Differences between perceived drinking habits of other demographic groups by parental status.

	People that work drink more responsibly than people who don't work	'My age' drink more responsibly than younger people	My peer group drink more than other peer groups	'People like me' drink more responsibly than those on lower pay
M + (SD) Child. (n=32)	2.56 (.84)	1.97 (1.03)	2.22 (.83)	2.94 (.80)
M + (SD) No child. (n=81)	2.42 (.86)	2.19 (.99)	2.30 (.90)	2.91 (.83)
t	-.797	1.040	.421	-.140
Sig.	.427	.303	.675	.889

Children and Motives: The comparison of children and no children on drinking motivation also displayed no statistically significant results. The mean scores for both categories were very similar across all motivational factors indicating that having dependent children does not influence drinking motives.

Table 22: Differences between drinking motives by parental status.

	Social	Coping	Enhancement	Conformity	Normality
M + (SD) Child. (n=32)	2.43 (.82)	3.10 (.73)	2.13 (.59)	3.58 (.64)	2.84 (.67)
M + (SD) No child. (n=81)	2.24 (1.02)	3.26 (.83)	2.08 (.78)	3.51 (.77)	2.65 (1.02)
t	-.915	1.060	-.325	-.276	-.989
Sig.	.362	.292	.746	.783	.325

Children and attitudes about intervention

There was no significant difference between those with dependent children and those without with regards to attitude toward interventions.

Table 23: Differences in beliefs about state intervention by parental status.

	Government should not intervene in people like me	Government should not intervene in anyone's drinking	People like me who earn are entitled to choose how to spend that money	I would drink less if alcohol cost more	Drinking habits of people like me is not an issue for the health service.
M + (SD) Child. (n=32)	2.38 (1.13)	2.66 (.94)	1.09 (.93)	2.81 (1.00)	2.88 (.94)
M + (SD) No child. (n=81)	2.38 (1.13)	2.86 (.97)	1.12 (.95)	2.62 (1.00)	3.05 (.92)
t	.613	1.040	.150	-.939	.901
Sig.	.541	.303	.881	.350	.369

Sex

The difference between male and female drinking habits was assessed using an independent t-test. As can be seen in Table 5 below, the mean quantity and frequency for males were both higher than females. The t-test showed that there was a statistically significant difference in the number of units consumed per sitting between males and females, with males drinking an average of 11.8 units/day and females 6.7 units/day.

Table 24: Drinking behaviours by sex - quantity and frequency.

	Quantity on a day when drinking (Units/day)	Frequency (days/week)
M + (SD) Female (n=81)	6.74 (4.25)	2.05 (1.61)
M + (SD) Male (n=32)	11.81 (8.64)	2.66 (2.04)
t	-3.180 **	-1.670
Sig.	.003 **	.098

The total units/week for each sex was also calculated using data from the above factors (quantity and frequency). The mean was calculated but not used on this occasion due the scaling used for assessing frequency, where '0' represented consuming 'less than once per week'. The cumulative percentage of male and female drinking above guideline limits (14units/week) was noted instead and were as follows; Male: 68.7% (n=22) and Female: 42% (n=34). The upper health threshold for assessing increased risk (Female: >35Units/week; Male: >50Units/week) was also noted for both sexes and were calculated as follows; Male: 9.4% (n=3) and Female: 9.9% (n=8).

Sex and acceptability beliefs

Similarly to children, sex was also assessed for impact on beliefs of acceptability using an independent t-test. It was likewise found that there was no significant difference between each sex with regards to their opinion of acceptable drinking habits. As Table 10 below displays, both males and females equally strongly disagreed of the acceptability of being sick or passing out after drinking. They minimally disagreed that it is acceptable to drink most evenings if with food or that it is more acceptable to drink at home than in public and substantially agreed that drinking alone is acceptable.

Table 25: Differences in acceptability beliefs based on sex.

	More acceptable to drink at home than public	Acceptable to drink alone	Acceptable to black-out after drinking	Acceptable to drink most evenings if with food	Acceptable to be sick after drinking
M + (SD) Female (n=81)	2.40 (.72)	1.30 (.89)	3.56 (.73)	2.47 (1.06)	3.22 (.88)
M + (SD) Male (n=32)	2.44 (.95)	1.25 (1.05)	3.44 (1.11)	2.44 (1.13)	3.44 (.95)
t	-.257	.237	.667	.140	-1.150
Sig.	.797	.813	.506	.889	.254

Sex and beliefs about other demographics

There were no statistically significant results when comparing sex with the opinions about comparative drinking behaviours of other demographics. One question which neared statistical significance, see Table 14 below, (p=.056) was the participant's comparison of their own drinking, and their view of others similar to themselves against those on lower salary. Females were more likely to disagree more strongly than males, ($M=3.01_{female}$; $M=2.69_{male}$). The other questions were more similarly grouped in mean results for both sexes.

Table 26: Differences between perceived drinking habits of other demographic groups by sex.

	People that work drink more responsibly than people who don't	'My age' drink more responsibly than younger	My peer group drink more than other peer groups	'People like me' drink more responsibly than

	work	people		those on lower pay
M + (SD) Female (n=81)	2.52 (.82)	2.17 (.93)	2.27 (.94)	3.01 (.81)
M + (SD) Male (n=32)	2.31 (.93)	2.00 (1.16)	2.28 (.73)	2.69 (.78)
t	1.150	.826	-.052	1.930
Sig.	.251	.411	.958	.056

Sex and motives

There were no significant differences or trends between either male or female sexes with regards to drinking motives. Both sexes were more likely to drink for enhancement and social purposes, rather than coping and conformity. Routine and normality was also only a motivator some of the time.

Table 27: Differences between drinking motives by sex.

	Social	Coping	Enhancement	Conformity	Normality
M + (SD) Female n=81	2.31 (.96)	3.16 (.85)	2.10 (.75)	3.53 (.72)	2.75 (.95)
M + (SD) Male n=32	2.24 (.98)	3.36 (.68)	2.09 (.71)	3.56 (.78)	2.59 (.88)

t	.382	-1.220	.170	-.165	.801
Sig.	.703	.225	.987	.870	.425

Sex and attitudes about intervention

When comparing male and female attitudes toward alcohol intervention, the only significant difference in attitudes between the two sexes were that males were more ambivalent when asked if they believed the government should not intervene in the drinking of people like themselves. However, females tended toward disagreement, M=2.06 and M=2.64 respectively.

Table 28: Differences in beliefs about state intervention by sex.

	Government should not intervene in people like me	Government should not intervene in anyone's drinking	People like me who earn are entitled to choose how to spend that money	I would drink less if alcohol cost more	Drinking habits of people like me is not an issue for the health service.
M + (SD) Female n=81	2.64 (1.00)	2.79 (.86)	1.19 (.91)	2.68 (1.02)	3.05 (.82)
M + (SD) Male n=32	2.06 (1.29)	2.84 (1.19)	.94 (1.01)	2.66 (.94)	2.88 (1.16)
t	2.280 *	-.231	1.260	.109	.779
Sig.	.027 *	.818	.210	.913	.440

Consumption and acceptability beliefs

The relationship between consumption (both frequency and quantity) and beliefs about acceptable drinking habits was assessed using Pearson product-moment correlation coefficient. As can be seen in Table 11 below, there was no significant correlation between average quantity consumed and any of the acceptability beliefs. However, there was a strong negative correlation between frequency (days/week) and both the participants' opinion of drinking alone ($p<.01$) and drinking most evenings if it is with food ($p<.01$). In both cases, the more frequently the participant drank the more likely they were to deem solitary drinking and regular alcohol consumption with food as acceptable.

Table 29: Relationships between acceptability beliefs and drinking quantity and frequency.

		More acceptable to drink at home than public	Acceptable to drink alone	Acceptable to black-out after drinking	Acceptable to drink most evenings if with food	Acceptable to be sick after drinking
Quantity: Average units/day (n=113)	Pearson Correlation	.093	-.061	-.045	.024	-.073
	Sig.	.327	.522	.635	.801	.441
Frequency: Days drinking/week (n=113)	Pearson Correlation	.160	-.279**	-.151	-.257**	.039
	Sig.	.090	.003**	.112	.006**	.681

Consumption and beliefs about other demographics

As can be seen in Table 18 below, there was a significant ($p<.05$) negative correlation between quantity of alcohol consumed and the opinion of the participant and their peers drink more responsibly than those on lower pay. This indicates that the more the participant drank (units/day) the more likely they were to agree that they, and those similar to themselves, drank more responsibly than those who earn less. The other statistically significant result from this specific analysis was the strong negative correlation ($p<.01$) between frequency and the participants opinion that they drink more responsibly than those younger than themselves. This correlation displays that the more regularly alcohol was consumed; the more likely the participant was to think that their age group drink more responsibly than younger age groups.

Table 30: **Relationships between perceived drinking habits of other demographic groups and drinking quantity and frequency**.

		People that work drink more responsibly than people who don't work	'My age' drink more responsibly than younger people	My peer group drink more than other peer groups	'People like me' drink more responsibly than those on lower pay
Quantity: Average units/day (n=113)	Pearson Correlation	-.049	.083	-.155	-.223*
	Sig.	.604	.382	.100	.017*
Frequency: Days	Pearson Correlation	.021	-.249**	-.092	-.062

drink/week (n=113)	Sig.	.827	.008**	.334	.511

Consumption and motives

The participants' consumption, in terms of quantity was analysed against possible drinking motives. There was a strong significant (p<.01)negative correlation between quantity and both social motives and normality motives indicating that with increased consumption in terms of units/day the more frequently the participant consumed alcohol due to motives of social and routine/normality. There was also a significant (p<.05) negative correlation between quantity and enhancement motives, indicating that with increased units consumed enhancement was also more likely to be noted as a frequent motivator. Coping and conformity were not statistically significant indicators of motives.

When analysed against consumption in terms of frequency (days/week) there was again a strong statistical negative correlation between routine/normality (p=.002) and frequency as well as coping (p=.001). These results display that with increased frequency of drinking the participant is more likely to be motivated to drinking due to coping and normality motives. Enhancement and frequency were also found to have a significant negative correlation (p=.020), displaying that it is also a motive that is likely to be a regular influencer with increased frequency in drinking. There was no statistically significant relationship between frequency and both social and conformity motives.

Table 31: Relationships between drinking motives and drinking frequency and quantity.

		Social	Coping	Enhancement	Conformity	Normality
Quantity: Average	Pearson Correlation	-.283 **	-.007	-.197 *	-.114	-.255 **

units/day (n=113)	Sig.	.002 **	.942	.036 *	.231	.007 **
Frequency: Days drink/week (n=113)	Pearson Correlation	-.007	-.300 **	-.218 *	-.016	-.292 **
	Sig.	.939	.001 **	.020 *	.864	.002 **

Consumption and attitudes about intervention

There was no significant relationship between quantity and attitudes towards intervention. However, there were significant negative correlations between frequency and three of the intervention questions; these are indicated in table 32 below. The results from this analysis indicate that with increased drinking frequency the more likely the participant was to agree than the government should not intervene with their drinking (p=.003), or anyone's drinking (p=.043), and that the drinking habits of people like themselves is not an issue for the health service (p=.036).

Table 32: Relationships between beliefs about state intervention and drinking quantity and frequency.

		Government should not intervene in people like me	Government should not intervene in anyone's drinking	People like me who earn are entitled to choose how to spend that money	I would drink less if alcohol cost more	Drinking habits of people like me is not an issue for the health service.
Quantity:	Pearson	-.032	.025	-.098	-.036	.007

Average units/day (n=113)	Correlation					
	Sig.	.738	.793	.300	.704	.942
Frequency: Days drink/week (n=113)	Pearson Correlation	-.281**	-.191*	.060	.149	-.198*
	Sig.	.003**	.043*	.528	.115	.036*

Summary of key findings from research questions

The data was systematically tested for sub-group differences, however of the 32 analyses conducted, only 15 were statistically significant. This indicates the overall similarity in responses from individuals in the sample. The findings from the analysis of each research questions are summarised below, and are further analysed and expanded on in Chapter 5 - Discussion.

Key findings from the sample as a whole

The sample, when removing healthcare professionals, reported a lack of knowledge with regards to the alcohol guidelines set out by the government. Only 23.5% (n=23) reported the correct guidelines for males and 25.5% (n=25) reported the correct guidelines for females. Nearly half (49.6%) of the participants as a whole reported drinking over the guideline 14units/week, when split by sex this was 68.7% of male participants, and 42% of female participants.

What factors explained differences in alcohol consumption in working adults?

Alcohol consumption across the sample was relatively similar between demographic groups, with only a few differences that were attributed to assessed demographic factors. Age and sex were two of the demographics that proved to have a significant relationship with consumption habits. The data showed that the older the individual was, the more frequently they drank, and that males were more likely to drink more than females. Although not statistically significant, there was an increasing trend of higher salary and increased frequency of consumption, however occupational classification seemed to show no significant differences. Having dependent children seemed to have no effect on the sample's alcohol consumption, neither did individuals' health status (mental and physical).

What were the beliefs about alcohol consumption in working adults in Newcastle upon Tyne?

The sample in general had very similar beliefs about the acceptability of alcohol consumption behaviours, disagreeing that it is acceptable to be sick or black out after drinking, that it is more

acceptable to drink at home than in public and that it is acceptable to drink most evenings if it is with food. Collectively they tended to agree that is acceptable to drink alone. With increasing age the sample were more likely to disagree more strongly with regards to being sick or blacking out after drinking, or drinking most evenings with food. Conversely, those who drank more frequently (days/week) were more likely to agree that it is acceptable to drink most evenings if it is with food and strongly agree that it is acceptable to drink alone.

What were the perceived drinking habits of those in other demographic groups?

The sample tended to have similar opinions with regards to the perceived drinking behaviours of other demographic groups, mildly disagreeing that they drink more responsibly than those who don't work, on lower pay, or those whom are younger. They also disagreed that their peer group drink more than other peer groups. The only significant difference in opinion was those who drank more frequently were more likely to agree that they drink more responsibly than younger age groups.

What were the motives for alcohol consumption in working adults?

The sample as a whole tended to drink alcohol more often due to social, enhancement and normality motives, than for coping and conformity motives. Social, enhancement and normality motives declined with age. Increased frequency of consumption was linked with stronger coping, enhancement and normality motives, whereas increased quantity (units/day) was linked with stronger social, enhancement and normality motives.

What were the attitudes of working adults with regards to state intervention?

The sample as a whole tended to be pro-interventionist but agreed that they were entitled to choose how to spend their earned money and disagreed that an increase in alcohol price would make them drink less. There was a significant relationship between age and alcohol price where the older the individual was the more likely they were to not be affected by an increase in price. An

individual's salary also affected the extent to which they agreed with interventions, those who earned more money (>£60,000/annum) were more likely agree that the government should not intervene with their, or anyone's drinking and they strongly agreed that they are entitled to choose how to spend their money. Those who drank more frequently were more likely to agree that the government should not intervene with their, or anyone's drinking along with believing that their drinking habits were not an issue for the NHS. Quantity had no significant effect on these beliefs. Those from professional and managerial occupations were more likely to disagree that the government should not intervene with anyone's drinking compared to mild disagreement from those in other occupations.

Chapter 5: Discussion

The aim of this research was to assess the beliefs, habits and motives of working adults with regards to their alcohol consumption as well as determine whether normalisation of excessive drinking had occurred. As previously stated in the Methods section, the study had a relatively low sample size in comparison to the local population and the population of interest (working adults in Newcastle). Therefore, although comparisons are made in this discussion to Newcastle-wide statistics, or other larger sampled studies, the reader should bear the limitation of the current sample size in mind. This discussion will explore the main findings in relation to four key areas: Newcastle's cultural context, normalisation of alcohol consumption, the influence of demographics such as work and age, and the implication for policy and intervention.

Contextualising Newcastle

This section will discuss the results in relation to Newcastle upon Tyne's alcogenic environment, covering five main aspects: sample, occupation and salary, location, attitude, and motivation.

This study recruited a young sample with the mean age being 36.5 years (in 2015 the national average was 41.3 years) (Office for National Statistics, 2015). This is reflective of the working-aged demographic that Newcastle as a city has been aiming to attract (Newcastle City Council, 2009). While other studies have focussed on adolescent and student drinking, as discussed in earlier sections, this research has captured an under-researched population that is important to focus on (Muhlack *et al.*, 2018). The 2011 census for Newcastle reported that 69.1% of Newcastle's population were aged between 16-64 years (working adult age), 4.2% more than the North East's, and 4.3% more than England's proportional working aged populations (Office for National Statistics, 2011). This further highlights the study's appropriate focus and utility to local public health teams.

The sample included a wide range of salary bands, with some high-end salaries reported as seen in Chapter 4 – Results. Alongside this, a wide diversity of occupational roles was also reported.

Newcastle as a city has been growing and developing since the post-industrial crash and in doing so is diversifying its labour. This study reflects the developments and growth of the city by the diversity of occupations reported - with the majority of the participants (over 55%) being in professional/managerial occupations.

As discussed in Chapter 2.1, Newcastle has been regenerated and re-branded as a vibrant leisure city with retail, bars and restaurants being a central focus(Newcastle City Council, 2009). This shift in labour from its predominantly industrial past to the modern service focused work force seen today has been key to boosting the local economy post de-industrialisation (Newcastle City Council, 2009). This shift has shaped the way the city has been regenerated (e.g. pedestrianisation of roads, gentrification – especially for businesses) but also the portrayal of Newcastle as a city of leisure, which has been a key drive to attract both young professionals to the area for work but also tourism, especially night tourism (Newcastle City Council, 2006; Johnson, 2019). Based on this it would be expected that a higher proportion of Newcastle's residents would report pubs, bars and restaurants as their most frequent place to drink. However, the results from this study have displayed that despite the high availability, accessibility and diversity of leisure locations the participants still reported home drinking as the majority preference (46% for home compared with 38% for pubs/bars/restaurants). This is consistent with trends across the UK of home drinking being the most prevalent and preferred option, furthering the complexity of studying alcohol consumption and public health's difficulties of tackling it (Burton and Marsden, 2016; Newcastle City Council, 2018).

Alongside home-drinking, this study provides some evidence to suggest that attitudes toward solitary drinking have also markedly changed. Drinking alone has previously been used as a marker of concerning drinking behaviour and generally is seen by the public as a taboo (Keough, O'Connor and Stewart, 2018; Manarang-Obsioma, 2019). However, in this study, the participants as a whole agreed that it is acceptable to drink alone. This highlights a potential shift in attitude toward solitary drinking, whereby it has moved from not only being a taboo but to an established norm, this is

consistent with Parker's theory that normalisation is fluid (Parker, Williams and Aldridge, 2002). When something is no longer a taboo it becomes more visible and discussed which means it is also more likely to proliferate as a behaviour. Further to this, it also highlights the shift in alcohol's place in the lives of adults – whilst usually seen as a socialising drug, it is now being used in new settings and for new purposes (e.g., relaxing at home alone) (Gonzales, 2018). This shift in attitude and behaviour is important to take into consideration in both compiling factors for risky drinking but also for understanding the broad ways in which alcohol is used in contemporary settings.

Newcastle's set up as a party city alongside its large student population give it a UK-wide reputation of being a binge drinking city (McIver, 2009; Holland, 2018). It has been marketed as a destination for clubbers, and stag and hen-parties. However, this study found that working adults strongly believe that it is not acceptable to be sick or black out after drinking, which are extreme and relatively common side-effects of binge drinking (NHS Choices, 2015). As previously stated, binge drinking as defined by the government is any female that consumes over 6 units in one sitting, or 8 units if male (UK Government, 2012). When asked how regularly (not using the term binge) the participants drank over these limits, both males and females reported engaging in binging (approximately once a week). This might suggest a disconnect between their own behaviour (which includes binging) and understanding of what binging actually is considering their views that the outcomes of 'extreme' binging (vomiting/blacking out) are unacceptable. This may be linked to a lack of awareness of what is classified as binge drinking under the current guidance alongside binge drinking's association with young people drinking 'out'. In turn, this could mean that they are unlikely to think that public health messages using that term are of relevance to them – rather they are for young people who are 'extreme' binge drinking. This is potentially another area for public health policy makers to focus on.

The most prevalent motivators for alcohol consumption amongst this sample were social and enhancement motives. Both were identified as motivators for over half of the drinking occasions in

the past year. This suggests that the sample often drink socially and with a view to enhance the experience, which is consistent with Newcastle's alcogenic environment and focus as a leisure city. The availability and accessibility of alcohol in Newcastle from supermarkets to niche shops and the huge variety of pubs, bars, restaurants and clubs make it a city that is designed to accommodate diverse tastes. In this way it easily meets the requirements of its inhabitants for consuming alcohol, and by offering new experiences and choice, potentially increases use.

Normalisation

This study aimed to assess the beliefs, habits and motives of working adults, hypothesising that both drinking (rather than non-drinking) and excessive, 'non-problematic' drinking (drinking beyond the guidelines without acute problematic outcomes) have been normalised. This section will discuss theories of normalisation with regards to the findings from this study.

It has been identified that there is no 'safe' limit for alcohol consumption, and therefore the guidelines for consumption are actually limits of 'risk' (Burton and Marsden, 2016). This study confirms that 'safe-drinking' (i.e. drinking below the guideline limit) has not been normalised amongst this population, based on results whereby the vast majority of participants could not relay the correct weekly consumption guidelines nor did half of the participants comply with them. What this sample's data suggests has become normalised, then, is excessive drinking (over the guideline amount). As previously discussed in Chapter 2.3 Foucault theorised that normalisation happens through discipline, power and knowledge to create the illusion of surveillance in order to self-enforce desired behaviours (Foucault, 1979). He argued that the government use laws (and the breaking of them) as a way to upkeep desired behaviours (e.g., drink driving, assault, disorderly behaviour). For adherence to the weekly consumption guidelines, however, there is no discipline for non-compliance. This might explain why normalisation of 'safe drinking' has not happened.

Even if drinking over the guidelines can be seen to be normalised, societal upkeep of this norm due to surveillance from one another is not present. Foucault's theory is therefore challenged in this sample when considering the normalisation of alcohol consumption. As previously discussed, Foucault argues that once a behaviour has been normalised it becomes self-enforcing due to deviance itself being highlighted by normalisation (Foucault, 1979). The present sample did not report strong motives to fit in or conform with respect to their drinking, either regarding engaging in drinking or abstinence. Although strong social motives were reported, these reflected the use of drinking to enhance enjoyment of social situations, rather than drinking to fit in with social groups. It can therefore be said that with regards to alcohol consumption, Foucault's theory of normalisation does not necessarily fit.

Given mixed findings with regards to Foucault's ideas, and limited evidence that drinking behaviour has been 'normalised' in the manner he proposes, more recent theories such Parker's 'normalisation thesis' (2002) and Sudhinaraset *et al.'s* (2016) use of the socio-ecological framework to explain alcohol use may be more suited to the understanding of this study.

Parker *et al.* identified five aspects that were important to the normalisation of drug use; this is discussed in relation to alcohol and the theorising of its normalisation in Chapter 2.3. The results from this study provide some support for Parker's ideas about the components that are used to measure the degree of normalisation. Specifically, availability and access to alcohol (from the perspective of economy), usage rates, accommodating attitudes to 'sensible' alcohol use (solely by users), and cultural accommodation of drinking are all demonstrated in the data.

First, availability and access to alcohol is evident from the sample in that all participants reported that they consume alcohol and drink in range of locations. Further to this, the sample were also financially capable of accessing alcohol, and reported that if the price of alcohol increased that they would not drink less – although this was less strongly reported from those in lower salaries (<£30,000/annum). From these findings it can be said that the availability and access to alcohol is

widespread for working adults in Newcastle – this is consistent with reports of Newcastle having a high alcohol outlet density and sales (Newcastle City Council, 2018).

Second, the recent and regular usage of alcohol is evidenced by the findings from the study, where the majority of the sample reported drinking alcohol within the last week. Furthermore, with half of the sample reporting that their regular weekly consumption is over the guideline amount it could also be argued that there is evidence of both recent and regular excessive drinking (misuse). Of particular interest, personal drinking was thought to be less than that of peers, and the same as other groups in society. This shows that regular excessive drinking is perceived to be widespread, which not only aligns with Bear and Knobe's (2017) idea that social norms, in this case drinking norms, are part descriptive but also the effect of the microsystem on the individual (Sudhinaraset, Wigglesworth and Takeuchi, 2016). Using Parker's *et al.'s* theory, widespread excessive usage not only evidences normalisation of drinking, but also that of excessive drinking.

Thirdly, Parker uses social accommodation of 'sensible' drug use as another component to determine normalisation of drug use. In the case of drinking, this study interprets that 'sensible' drinking is drinking within the guidelines, not 'non-problematic' drinking – previously defined. Using this as an interpretation for relevance to alcohol, it can be said that this sample are very accommodating of 'sensible' drinking, considering that around half of the participants consumed more than the guidelines. However, it could be argued that the sample were not accommodating of more extreme drinking like being sick or blacking out based on the results from this study. This insinuates that social accommodation to 'extreme' and 'problematic' drinking is low. From this, it could be argued that not only is 'sensible' drinking tolerated, but so is excessive, 'non-problematic' drinking.

Lastly, in this study, cultural accommodation of drinking is evidenced by the whole sample reporting that they consume alcohol, and also the variety of locations in which they drink. Pubs, bars, restaurants, rugby clubs, friend's houses and 'home-drinking' were all cited as locations in which

alcohol was consumed. This breadth of locations reported displays the wide-spread accommodation of alcohol in our culture, where each of the locations allows for - and potentially promotes and increases - the consumption of alcohol.

Evidencing each applicable component of Parker's theory, it can be argued that in this sample not only is drinking alcohol a normalised behaviour, but excessive 'non-problematic' drinking is also normalised. In doing so it also shows the relevance of Parker's theory with regards to assessing the extent of the normalisation of alcohol. Although this theory can be used to assess whether a behaviour has become normalised, it does not tap into the smaller factors within each component for assessing *why* a group are drinking in the way they are. This is where Sudhinaraset *et al.'s* (2016) framework can be used so to underpin each component and understand the multitude of factors affecting the individual and their drinking beliefs, habits and motives.

The influence of demographics: Work, Salary, Sex and Age

Alcohol consumption significantly differed between males and females with males reportedly consuming over double what females reported in an average week, which is a similar finding to other research (Wilsnack *et al.*, 2009). Considering the skew in the distribution with regards to sex (71.7% female; 28.3% male) in this study, it can also be hypothesised that the overall proportion of adults consuming above guidelines amongst a more evenly distributed population (i.e., 50/50 female/male) would be even higher than the 49.6% measured in this study. Despite these differences in consumption, sex had few other notable differences with regards to beliefs or motives. It is well known that males tend to universally drink more than females, whether due to cultural history, biology or both (Wilsnack and Wilsnack, 2004). This study offers data that demonstrates that males and females are drinking for the same motives (i.e. social, enhancement and normality) and tend to have similar beliefs about other demographic groups. Given that in the UK, women are no longer prohibited by establishments and drinking has been seen to be normalised by both sexes, the difference in quantity consumed may now be more a combination of biology and

recent policy and to a lesser extent the cultural and societal norms of the past that previously characterised this difference (Holmila and Raitasalo, 2005; Wilsnack *et al.*, 2009). Furthermore, considering that men tend to earn more than women (11-16.7%; UK Government, 2019) and that those earning more are more likely to drink more frequently (ONS, 2017), it is also possible to propose that the pay gap between sexes could be a contributing factor to differences in consumption. The only other significant finding with regards to sex was that females agreed more strongly when asked if the government should intervene in the drinking habits of people like themselves whereas males were more likely to disagree, this will be discussed further in the section on interventions below.

This study also found that there was no difference in actual consumption, beliefs or motives between those who had dependent children and those who did not. The finding of consumption is consistent with other research that has focused on consumption habits and parenthood, whereby consumption is unlikely to change, but the setting is (e.g., from traditional (pub) drinking to home drinking) (Kuntsche, Knibbe and Gmel, 2009; Brierley-Jones *et al.*, 2014). Motives being similar for both groups is interesting given the rhetoric that parents tend to go out less, and drink more frequently to relax or de-stress – associated with children (Brierley-Jones *et al.*, 2014). Given this it would be expected that coping motives would be scored higher, and enhancement and social motives lower than those with no children, but that was not the case in the present data. Collectively, findings of the present study suggest that interventions should target those with children similarly to those without, given little difference in relevant beliefs and behaviours concerning alcohol.

Salary and occupational group tended to have little effect on differences between beliefs, habits and motives. This study found that there was a weak, non-significant, trend between increasing salary and increased drinking frequency. Recent government studies found that those earning more were more likely to drink more often (ONS, 2017). Considering that this study's findings with regards to

frequency and salary were non-significant this could potentially show a weakening of this hypothesis, or it could be attributed to a lack of participants in higher salary groups. As expected, those who earned more reported that they would be less likely to be affected by an increase in the price of alcohol. This finding however was not exponential, with those earning over £30,000 reporting similarly to those earning over £60,000. The implications of this finding are discussed further in the following section. A significant difference that emerged from the study between salary groups was regarding beliefs about interventions by the government. These differences are also discussed in more detail in the 'Intervention and Policy' section below.

A final demographic variable of interest was that of age. In this study, as age increased, participants were more likely to believe that they drank more responsibly than younger adults. This is the opposite from their reported actual consumption however, which was higher than younger adults. Those who earned over £60,000 were the only other sub-group of demographics that felt they drank more responsibly than others. As per trends observed throughout this study, there was a strong relationship between those who drank frequently and believing that they drink more responsibly than younger people. As age, salary and drinking frequency are strongly correlated; we do not know which of these factors is causal. What this does suggest however is that there is a distortion of perceptions of responsible drinking relative to one's own consumption that is more evident in those who are older or earn more. This may be linked to the change in drinking patterns observed. High earners and older adults are likely to have been immersed in cultures where heavy drinking was/is more prevalent, and therefore see this as the norm and the likely experience of younger generations (inferred from patterns of consumption changing over time). This is probably further reinforced by continued sensationalist reporting of problematic drinking of young people which tends to focus on atypical cases and/or extreme behaviours (despite younger people drinking less. Further research would be required to confirm how and why these misperceptions have arisen in these subgroups.

Given that this study also found that in general, working adults tended to drink for social and enhancement purposes, it is also interesting to note that as age increased the participants were less likely to report drinking for those motives as well as any of the other motives (normality, conformity, coping). Considering that the study also found – aligned with ONS data – that those who were older were more likely to drink more, this potentially demonstrates that there is a lack of knowledge of motivation behind drinking as age increases. Not identifying specific motivators for consumption could therefore suggest that for older adults, drinking alcohol is so ingrained that it is no longer driven by normalisation. That is, hypothetically, even if there was a reverse in the theorised elements required for normalisation (e.g., accessibility, trying rates, or social accommodation, (Parker *et al.*, 2002), drinking behaviour may well continue.

Anti-interventionist / Policy

As a whole the sample tended to be pro-interventionist with only some groups being less open to intervention. Notably, participants that had higher salaries and drank more frequently were less supportive of government interventions, in terms of both 'their' group's drinking and for anyone's drinking. This may be linked to frequent drinkers potentially not recognising their drinking as problematic (this group rated their drinking as less of a problem for the NHS), whether through a lack of awareness, their prescriptive and descriptive norms based on their own subcultures, or a defensive response. Considering that higher salaries and frequent drinking are linked, these individuals are key targets for policy and interventions. Findings that they are anti-interventionist, unlikely to be affected by policy responses such as minimum unit pricing, and resistant to seeing their drinking as problematic confirms that they are hard to engage.

More promisingly, due to the participants as a whole expressing pro-interventionist qualities, government and NHS interventions for alcohol consumption would be supported by the majority of individuals. This may suggest that there is some recognition by those consuming alcohol in a manner that increases risk of future health problems that intervention is needed. This public support for

intervention would be welcomed by policy makers, but it also raises questions about the efficacy of the current - minimal - interventions to reach this group (e.g., unit and guideline awareness). Considering nearly half of the participants surveyed were drinking over the guideline amount (and, due to underreporting, this is likely to be a conservative estimate of consumption), determining the appropriate method of intervention delivery is key.

Future studies are required to focus more specifically on working adults' attitudes toward interventions and what they think would encourage those drinking in a, potentially unknowingly, problematic way to reduce their consumption. Specific focus is also required on the known demographic groups who are anti-interventionist but also the most frequent drinkers. Increasing age, although not a strong trend, tended to also follow these anti-interventionist patterns; however, further studies would also be needed to replicate this to see if this is a genuine trend. Although not significant, this is an interesting finding as in general, increasing age tends to be aligned with acceptability of intervention and specifically intrusive interventions (Diepeveen *et al.*, 2013). However, this was found to not be the case when the person is partaking in the 'unhealthy' behaviour, where they are then more likely to reject intervention – this is thought to be due to self-interest (Diepeveen *et al.*, 2013). Considering that increasing age was also linked to higher drinking frequency, this could explain why age also had anti-interventionist trends and is another demographic that would be a key focus of future studies with a view to shape policy and intervention. This same argument could also be applied to attempt to explain why males were more likely than females to disagree with intervention with regards to their drinking.

As previously discussed in Chapter 2.2 current alcohol policy tends to focus on underage drinking, binge drinking and those considered to have a drinking problem (extreme end) (Muhlack *et al.*, 2018). Those who are drinking alcohol but do not associate themselves with these categories tend to be non-problematised (Muhlack *et al.*, 2018). Further follow up research (e.g., focus groups) would be required to identify what exactly is the working population's view of 'responsible' or 'sensible'

drinking, given the novel interpretations and definitions explored in this study. We hypothesise that by 'drinking responsibly' the participants mean not causing anyone else any issues (i.e. not fighting, vomiting or being disorderly in public, not requiring immediate medical attention). It is unclear whether participants are aware of the long term health consequences which are linked to their level of alcohol consumption, and whether or not they recognise the cost to the NHS for providing this potential care. Alternatively, the participants may see their working – tax-paying – status as a contribution towards the cost of the NHS, thus permitting its future potential use. The focus of the government's alcohol policy on acute and short-term problems whilst using language that non-problematises other drinkers, assists in permitting the day to day, consistent and excessive (even if considered marginal) drinking by the rest of the population. This study gives some insight and evidence to suggest that policy should also be focussing more on these 'non-problematic' drinkers in order to reduce the risk of future health problems that are associated with and contributed to by alcohol consumption. This in turn would hopefully promote *actual* rather than *perceived* responsible drinking.

Strengths and Limitations of Research

A key strength of this research is its originality. It examines a novel topic and responds to other researchers' calls (e.g., Harvey *et al.*, 1992; Ling *et al.*, 2012; Muhlack *et al.*, 2018) for more work exploring 'middle age', 'white collar' and non-student individuals. The thesis also offers a critique of the traditional ideas of 'harder to reach groups'. As previously outlined, these working individuals who are generally healthy can be difficult to engage for two main reasons. First, due to the lack of reach of health messages to this group traditionally broadcast through healthcare providers and education. Second, they also tend to be the population who are 'doing the right thing' (i.e., working, paying tax, not causing problems). This, alongside not seeing their drinking as problematic, means there is a risk that health policies are not acknowledged by them. These elements combined lead them to be hard to reach and difficult to engage.

In addition, the thesis makes a number of methodological contributions. Having used previously validated tools, with some adaptations (e.g. college aimed language used in the DMQ-SF was adapted to suit adults), the research helps to develop these questionnaires for broader use with a wider population. This has also enabled future researchers to use these for replication or more extensive study of working adults. Furthermore, a new set of items concerning motivation relating to normality was inserted into this adapted version of the DMQ-SF - these items can be used in the future to explore this concept more, perhaps with other groups. This set of items demonstrated reliability when tested, as well as content validity (i.e., the content was meaningful to and able to be completed by participants) and predictive validity (i.e. it was able to differentiate between groups and predict relevant outcomes). This emphasizes its potential as a future tool.

A further strength of this research was the manner in which data was collected. Distributed sampling was attempted by type of professional group using information about the make-up of Newcastle's working population. The final sample did have a notable breadth of respondents in terms of salary and occupational type. Despite this approach, there were weaknesses in terms of the final sample

obtained, namely, clustering of occupations. This was particularly problematic in terms of a proportionately large subsample of dieticians. These individuals are likely, because of their profession, to have atypical drinking and knowledge about drinking, which was indeed the case. This somewhat skewed the whole-sample data. Despite this, they still met the inclusion criteria as working adults within Newcastle, excluding them was therefore dismissed and only done when analysing knowledge of the weekly drinking guidelines. However, it is important that the results are qualified in this light.

The method of sampling was also a challenge. The questionnaire could only be completed online, which may have excluded those with low technological literacy or access, especially if income-related. In addition to the widely-discussed sampling biases of questionnaire research, the topic under discussion might have deterred some or triggered self-report biases in others. Although this was hopefully mitigated by the use of a non-personal online platform and the anonymity of the study.

The overall sample hit the intended target size of 100. Although this was adequate for the whole sample analyses and correlation analysis such as Pearson's, it meant that comparing sub-samples (e.g., for demographic groups) could not always be done. Where possible, groups were collapsed or parcelled (e.g. occupation) to enable meaningful comparisons, especially when using analysis such as ANOVA's. Despite a relatively small sample size, confidence can still be had in the significant results as smaller samples are more likely to produce type 2 than type 1 errors.

Despite challenges with sampling and the final size, I argue the findings may well be generalisable to working adults who drink more broadly, with some important provisos. First, the sample were all based in Newcastle and it has been argued throughout this thesis that its alcogenic environment and history is likely to have impacted on beliefs and behaviour. Secondly, working adults in areas with very different histories and environments may drink differently. In addition, given the effect of salary and age on drinking, the findings may not generalise to cities of very high or low levels of affluence,

or cities with vastly different age demographics. Lastly, the sample had very limited ethnic diversity - it would therefore be inappropriate at this stage to generalise the findings to other demographic groups that might have different cultural attitudes towards drinking. Notwithstanding these sampling limitations, however the research has offered some theoretically generalisable conclusions.

Implications and Future Research

The study has implications for public health professionals, the government, the general public, other alcohol researchers and other sociologists. These will be discussed in turn below.

Public health professionals should be aware that most research misses out this population group and based on the results from this study further research is required to see how best to accommodate this group, especially those at higher risk/lacking insight into their own drinking. There is also a need for clarification surrounding the word 'binge' considering this study showed that the participants did not recognise that they were binge drinking. This could be achieved either by explaining the amount for 'binging' is actually determined by a relatively small quantity rather than the consequences of more extreme drinking, or by seeking a change in terminology to include levels of 'binge'. Development and testing of interventions that target this working group is required – with particular focus on terminology used and location/access. Considering many of the participants were of sound health, common access routes using GPs, pharmacies and other HCPs may not be appropriate in this population. Workplace interventions or interventions operating through social media channels may prove more successful in engaging this population. Further to this, the study showed that attitudes and motives did not differ by many sub-groups. For example, sex did not display any differences out-with actual consumption. Consequently, consideration should be given to interventions not targeting each specific sub-group or person within the 'missing middle', general interventions may be appropriate.

The government should continue to be encouraged to produce a new alcohol strategy, including a focus on the 'missing middle' considering they have been found to be generally pro-interventionist. Terminology used in the produced policy should not non-problematise and allow those drinking over guideline amounts to be lured into a sense of security that they are 'drinking responsibly'.

Members of the public should be aware that their own perceptions of 'responsible drinking' may not be accurate and are encouraged to revise and seek understanding of what the weekly guidelines for alcohol consumption are. It is important that they understand that although exceeding these may not present immediate harm, it has been linked with increased risk of a multitude of health problems long term.

To other alcohol researchers, this study highlighted the importance of understanding motives and attitudes towards alcohol as well as actual consumption in the working adult population. Unlike with young persons, conformity is a less common motive and therefor further research is required to understand drinking amongst this population, and what type of interventions may have an effect. Collaborating with public health professionals and researchers involved in alcohol studies both nationally and locally to build on current research would be required in order to design and implement interventions that would be received by this working adult population. Importantly, this study confirms that current methods of delivering interventions and educating this working population are not effective, therefore determining a method of intervention delivery amongst this population is crucial.

Sociologists may benefit from adapting and combining current theories and models of use and normalisation within our society (e.g. Parker *et al.*, 2002; Sudhinaraset *et al*, 2016) but with a particular focus on alcohol. This would potentially allow further understanding as to how drinking alcohol – and excessive drinking - have become normalised, within our day to day lives. This could provide a tool to work from when trying to seek how best to reduce alcogenic environments, population consumption, and the glorification of alcohol in general. Further developing and adapting tools, such as the Drinking Motives Questionnaire (DMQ; Kuntsche and Kuntsche, 2009), for use in adult populations - such as was done for this study - should be considered to gain wider knowledge of motives for consumption in populations other than adolescents/students.

Practically, it is also worth noting for other researchers that in this research, emailing companies and organisations directly resulted in an insufficient response rate. When the strategy was switched to using known individuals as gatekeepers for their companies, response rates improved. It is possible that future research may gain more responses from a more diverse group if companies were approached in person to create gate-keepers.

Conclusion

Despite the rhetoric that the working population drink 'responsibly' around half of the participants sampled in this research were still consuming over the guideline amount (Emslie, Hunt and Lyons, 2012). Further to this, only 25% of the participants knew the guidelines for weekly consumption. These results highlight that current policy –which does not tend to focus on this population – is not suitable and education about guideline units is not sufficiently influencing either awareness or consumption behaviour.

Key findings consistent with previous research were that increased frequency of drinking tended to increase with age, and to a lesser extent, with increasing salary. Sex was also a key differentiator for consumption, with males consuming over twice as much as females reportedly consumed. Novel findings were that although participants as a whole tended to be pro-interventionist; this was not the case for those who reported drinking more frequently. Support for interventions also decreased with increasing age, for males, and for those earning were also less likely to accept intervention. Those that were older also tended to believe they drank more responsibly than younger adults.

Findings relating to motives, the reasons why people drink, were mixed. Overall, it appears working adults have different motives for drinking to young adults and students, primarily drinking for social and enhancement purposes along with normality. In contrast to previous research conformity and coping were rarely cited as reasons for drinking by the group sampled. Importantly, motives did not differ by sex, salary or occupational group. However, as participants got older (and theoretically drank more) they were less likely to identify with motives for drinking. This suggests that for older adults, drinking – and excessive drinking - is perhaps beyond normalisation. It is embedded.

Another important finding was that drinking alone – previously seen negatively as atypical and a risk factor for alcohol problems – was seen as acceptable across the group of participants. This highlights a shift in attitude toward solitary drinking, and demonstrates the necessity for alcohol 'abuse'

contributing factors to be re-evaluated. Further to this, it also highlights the shift in alcohol's place in the lives of adults as it is usually seen as a socialising drug, but is now being used more frequently in other settings and for other purposes (i.e. relaxing at home alone).

Some positive findings from a public health perspective were that attitudes toward the outcomes of extreme binge drinking were negative, and the participants generally felt being sick or blacking out after drinking was unacceptable. Age tended to intensify this. Despite this, the participants tended to still partake in 'binge' drinking at least once a week on average, highlighting a disconnect between their actions and beliefs, but also the term binge itself – associating it with younger people who drink more extremely. This is an important point for public health as currently messages about binge drinking will not reach the attention of this population.

Overall, this study proposes that - in the working adult population – drinking, and excessive drinking has been normalised, and in older age groups, potentially embedded - meaning that they are a future health problem and concern for policy makers and public health professionals. More attention and research should focus on working adults so to tackle the belief that they are 'non-problematic' drinkers and decrease the future health burden that this population may present. It is also important to note that the current adult working population will shift and change over the coming decades – potentially altering drinking cultures as the younger population (e.g. generation X, millennials (Y), generation Z) become the bulk of the working adults, and 'baby boomers' retire. Research on working adults drinking and the tools and models used to track this, will therefore be required for the future generations, re-emphasising the importance of developing these now.

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Appendix 1.1: Research Ethics and Risk Assessment Form

SECTION A: INTRODUCTORY INFORMATION

A.1. Name of researcher(s):	**Caitlin Sedgeworth**
A.2. Email Address(es) of researcher(s):	**caitlin.i.sedgeworth@durham.ac.uk**
A.3. Project Title:	**Drinking beliefs, habits and motivations of working adults in Newcastle upon Tyne.**
A.4. Project Funder (where appropriate):	
A.5. When do you intend to start data collection?	**September 2018**
A.6. When will the project finish?	**September 2019**
A.7. *For students only:* Student ID: Degree, year and module: Supervisor:	**Sqjx59** **MRes** **Kimberly Jamie and Jonathan Wistow**

A.8. Brief summary of the research questions:

Most research on alcohol consumption tends to focus on underage drinking, young people and students or alcohol use disorder. Recent statistics from the Office for National Statistics (ONS) stated that those who drink more regularly and spend the most on alcohol tend to be older adults and high earners. Despite this there is currently little research on the drinking habits of the adult population in the UK. The North East, specifically Newcastle, has been chosen as a place of interest for this research due to: (i) a recent, rapid increase in the proportional population of working aged adults, (ii) historical population demographics and the post-industrial culture of the region, and (iii) its contemporary marketisation as a 'leisure city', with associated drink-related focus.

This research is driven by these specific research questions:

What are the current drinking habits of the adult working population of Newcastle?

What are their beliefs with regards to normalisation of alcohol consumption and government intervention amongst their demographic? (e.g., age, sas)

What are their motivations for the consumption of alcohol?

Do these habits, beliefs and motivations differ between demographic subgroups?

Why have these behaviours emerged and what (if anything) could or should be done to promote a change in behaviour?

A.9. What data collection method/s are you intending you use, and why?

Predominantly quantitative questionnaire in order to gain representative data for comparison across population sub-groups.

Focus groups to follow up on themes that emerge from initial data gathering. This will give a more in depth exploration and understanding of behaviours that emerged as well as allow for discussion of more challenging questions.

SECTION B: ETHICS CHECKLIST

While all subsequent sections of this form should be completed for all studies, this checklist is designed to identify those areas where more detailed information should be given. Please note: It is better to identify an area where ethical or safety issues may arise and then explain how these will be dealt with, than to ignore potential risks to participants and/or the researchers.

	Yes	No
a). Does the study involve participants who are *potentially vulnerable*?	☐	X
b). Will it be necessary for participants to take part in the study without their knowledge/consent (e.g. covert observation of people in non-public places)?	☐	X
c). Could the study cause harm, discomfort, stress, anxiety or any other negative consequence beyond the risks encountered in normal life?	X	
d) Does the research address a *potentially sensitive topic*?	X	☐
e). Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?	☐	X
f). Are steps being taken to protect anonymity and confidentiality?	X	☐
g). Are there potential risks to the researchers' health, safety and wellbeing in conducting this research beyond those experienced in the researchers' everyday life?	☐	X

SECTION C: METHODS AND DATA COLLECTION

C.1. Who will be your research participants?

Males and females (as equal as possible), over the age of 18 whom are currently employed and consume alcohol.

C.2. How will you recruit your participants and how will they be selected or sampled?

Participants will be recruited from a variety of workplaces across multiple industries using the UK Standard Industrial Classification (UK SIC 2007) and the ONS Business Register and Employment Survey to ensure proportional coverage across classifications. Companies and employers within each classification will then be approached either in person or by phone to explain about the project and to ask if they would circulate the questionnaire amongst their employees. The questionnaire and participants information sheet will be available in an online format and the link will be sent to those contacted so that it can be forwarded to employees through whichever medium they prefer. Smaller businesses would be approached in a similar way, by phone or in person, to request that the manager/senior staff member would circulate - using whichever preferred method – the link to the participant's information sheet and questionnaire.

C.3. How will you explain the research to the participants and gain their consent? (If consent will not be obtained, please explain why.)

The research is explained in the participant's information sheet at the front of the questionnaire – see attached copy. This will be the same format in the online version that will be used.
Consent is explicitly mentioned in the participant's information sheet and can be given by the participant ticking the consent box to confirm understanding. On the online format a box will have to be ticked before it will let them proceed to the questionnaire.

C.4. What procedures are in place to ensure the anonymity and confidentiality of your participants and their responses?

There are no personal identifiers asked for in the questionnaire – as such all data is anonymous. The option for leaving an email address for future correspondence about participating in future research is optional. In the online format there is a link that opens up a separate survey page for consent for future contact and an email address to be left. This means that the questionnaire data remains anonymous.
All questionnaire data, as well as the email addresses will be stored securely, behind passwords, online with access only given to the researchers.

C.5. Are there any circumstances in which there would be a limit or exclusion to the anonymity/confidentiality offered to participants? If so, please explain further.

There are no such questions in the questionnaire that would uncover information that would require confidentiality to be broken. It would also not be possible as all data will be anonymous.

C.6. You must attach a **participant information sheet or summary explanation** that will be given to potential participants in your research.

Within this, have you explained (in a way that is accessible to the participants):	Yes	No
a). What the research is about?	X	☐
b). Why the participants have been chosen to take part and what they will be asked to do?	X	☐
c). Any potential benefits and/or risks involved in their participation?	X	☐
d) What levels of anonymity and confidentiality will apply to the information that they share, and if there are any exceptions to these?	X	☐
e). What the data will be used for?	X	☐
f). How the data will be stored securely?	X	☐
g). How they can withdraw from the project?	X	☐

h). Who the researchers are, and how they can be contacted?	X	☐

SECTION D: POTENTIAL RISKS TO PARTICIPANTS

You should think carefully about the risks that participating in your research poses to participants. Be aware that some subjects can be sensitive for participants even if they are not dealing explicitly with a 'sensitive' topic. Please complete this section as fully as possible and continue on additional pages if necessary.

What risks to participants may arise from participating in your research?	How likely is it that these risks will actually happen?	How much harm would be caused if this risk did occur?	What measures are you putting in place to ensure this does not happen (or that if it does, the impact on participants is reduced)?
1. If alcohol is a sensitive topic then the questionnaire may be upsetting to those having to write down their drinking habits or for those whom the questionnaire may prompt realisation of their drinking habits or general health and wellbeing.	Unlikely	Mild harm – the questionnaire asks about general drinking habits and does not necessarily explore health, well-being or addiction deeply.	The participants information sheet actively discourages those who deem themselves likely to be upset by the topic of alcohol or health from participating. If participants find themselves upset or affected by the questions asked there are a series of links to further information and helplines surrounding the topic of alcohol and health.
2. If alcohol is a sensitive topic then the focus groups may be upsetting to those having to vocalise their drinking habits or discuss other people's habits.	Unlikely	Mild harm – the focus groups will be for furthering the depth in information they have already provided and expanding on other themes that may emerge from the questionnaire.	The participants will have already participated in the original questionnaire which discourages those who find the topic of alcohol sensitive. Leaving a contact for future research as also optional so they are unlikely to have done that knowing they would be harmed by the research.

			The focus group information sheet will also actively discourages those who deem themselves likely to be upset by the topic of alcohol or health from participating. The focus groups will be steered using the focus group guide in order to not go into too much detail on topics that may be deemed to be distressing for either the researcher or participants. If participants find themselves upset or affected by the questions asked during the focus group they may leave at any time and request to withdraw their data. There will also be a series of links to further information and helplines surrounding the topic of alcohol and health for anyone whom may require.

SECTION E: POTENTIAL RISKS TO RESEARCHERS

You should think carefully about any hazards or risks to you as a researcher that will be present because of you conducting this research. Please complete this section as fully as possible and continue on additional pages if necessary. Please include an assessment of any health conditions, injuries, allergies or intolerances that may present a risk to you taking part in the proposed research activities (including any related medication used to control these), or any reasonable adjustments that may be required where a disability might otherwise prevent you from participating fully within the research.

1. Where will the research be conducted/what will be the research site? Research will be conducted remotely and online.

What hazards or risks to you as a researcher may arise from conducting this research?	How likely is it that these risks will actually happen?	How much harm would be caused if this risk did happen?	What measures are being put in place to ensure this does not happen (or that if it does, the impact on researchers is reduced)?
1. None for initial stage – research is remote and online. The questionnaire does not ask in depth questions about participants lives such that it would invoke mild distress upon analysis.			
2. Mild risk for focus groups – discomfort meeting with a group of strangers in an off-site location. Discomfort from discussions.	Unlikely	Mild harm - discussions will not be focussing on distressing topics and meeting will take place in safe environment.	The focus groups will take place in a safe location (if possible Northumbria university) and so will be in an environment which is private but monitored. The focus groups will be steered using the focus group guide in order to not go into too much detail on topics that may be deemed to be distressing for either the researcher or participants.

SECTION F: OTHER APPROVALS

	Yes, document attached	Yes, documents to follow	No
a). Does the research require ethical approval from the NHS or a Social Services Authority? If so, please attach a copy of the draft form that you intend to submit, together with any accompanying documentation.	☐		X
b). Might the proposed research meet the definition of a *clinical trial*? (If yes, a copy of this form must be sent to the University's Insurance Officer, Tel. 0191 334 9266, for approval, and evidence of approval must be attached before the project can start).	☐		X
c). Does the research involve working data, staff or offenders connected with the National Offender Management Service? If so, please see the guidance at https://www.gov.uk/government/organisations/national-offender-management-service/about/research and submit a copy of your proposed application to the NOMS Integrated Application System with your form.	☐		X
d). Does the project involve activities that may take place within Colleges of Durham University, including recruitment of participants via associated networks (e.g. social media)? (If so, approval from the Head of the College/s concerned will be required after departmental approval has been granted – see guidance notes for further details)		☐	X
e). Will you be required to undertake a Disclosure and Barring Service (criminal records) check to undertake the research?	☐	☐	X
f) I confirm that travel approval has or will be sought via the online approval system at http://apps.dur.ac.uk/travel.forms for all trips during this research which meet the following criteria: For Students travelling away from the University, this applies where travel is not to their home and involves an overnight stay. For Staff travelling away from the University, this applies only when travelling to an overseas destination.	Yes ☐		No X

SECTION G: SUBMISSION CHECKLIST AND SIGNATURES

When submitting your ethics application, you should also submit supporting documentation as follows:

Supporting Documents	**Included (tick)**
Fully Completed Research Ethics and Risk Assessment Form	X
Interview Guide (if using interviews)	
Focus Group Topic Guide (if using focus groups)	(To follow if focus groups going to be used)

Questionnaire (if using questionnaires)	X
Participant Information Sheet or Equivalent	X
Consent Form (if appropriate)	X
For students only: Written/email confirmation from all agencies involved that they agree to participate, also stating whether they require a DBS check. If confirmation is not yet available, please attach a copy of the letter that you propose to send to request this; proof of organisational consent must be forwarded to your Programme Secretary before any data is collected.	

Please indicate the reason if any documents cannot be included at this stage:
(Please note that any ethics applications submitted without sufficient supporting documentation will not be able to be assessed.)

Signatures

Researcher's Signature: Date:

Supervisor's Signature (PGR students only): Date:

Please keep a copy of your approved ethics application for your records.

If you decide to change your research significantly after receiving ethics approval, you must submit a revised ethics form along with updated supporting documentation before you can implement these changes.

Appendix 1.2: Privacy Notice

This notice provides you with the privacy information that you need to know before you provide personal data for the particular purpose(s) stated below.

Title of Project: Drinking beliefs, habits and motivations of working adults in Newcastle upon Tyne.

Type(s) of personal data collected and held by the Researcher and method of collection:

Personal data will be collected through questionnaire but will not be identifiable data. The following is a list of the personal data that will be held by the researcher:
Standard data - Job title, salary, ethnicity, age, sex.
Sensitive data - Health.
Other data: Your views on alcohol consumption and government intervention.
Email address (optional and separate).

Lawful Basis:

Consent given by the individual.

How personal data is stored:

All data will be stored securely, behind passwords, online with access only given to the researchers. There are no personal identifiers asked for in the questionnaire – as such all data is anonymous. The option for leaving an email address for future correspondence about participating in focus groups is optional; this is separate from the responses so that the data remains anonymous.

How personal data is processed:
There are no personal identifiers asked for in the questionnaire - as such all data is anonymous. The data responses collected will be analysed according to certain criteria.

Withdrawal of data:

As all data is anonymous, once the questionnaire has been submitted withdrawal from the study will not be possible as your responses will not be identifiable.

Who the Researcher shares personal data with:

All the data that will be collected is anonymous, as such all the data shared – with other researchers – or published will not be identifiable.
Email addresses given will only be accessed by the research team and only used for contact about future research in relation to this study.

How long personal data is held for:

There is no identifiable data collected, all data will be anonymous.
Email addresses supplied will be stored securely, behind passwords, until such a time that they will be used (for arranging focus groups), after which these will be destroyed.

How to object to the processing of your personal data:

If you have any concerns regarding the study or the processing of your personal data, please contact the lead researcher, Caitlin Sedgeworth: caitlin.i.sedgeworth@durham.ac.uk or the project supervisors, Kimberly Jamie:kimberly.jamie@durham.ac.uk, or Jonathan Wistow: jonathan.wistow@durham.ac.uk.

If you require further information please contact:

Researcher: Caitlin Sedgeworth

Email: Caitlin.i.sedgeworth@durham.ac.uk

Supervisor: Kimberly Jamie / Jonathan Wistow

Address: Department of Sociology, Durham University, 32 Old Elvet, Durham, DH1 3JS

Email: kimberly.jamie@durham.ac.uk, or jonathan.wistow@durham.ac.uk

Appendix 1.3: Ethics approval

CAITLIN SEDGEWORTH.

PART F: OUTCOME OF THE APPLICATION

Reject The application is incomplete and/or cannot be assessed in its current format. Please complete the application fully.	
Revise and Resubmit The application cannot be approved in its current format. Please revise the application as per the comments below. Please complete the application fully.	
Approved, with Set Date for Review The application is approved and you may begin data collection. A date for further review of the project as it develops has been set to take place on: _____ The anticipated nominated reviewer will be:_____	
Approved The application is approved and you may begin data collection.	

Comments:

I approve this Ethics and Risk Assessment application and I have no conflict of interest to declare.

First Reviewer's Signature:

First Reviewer's Name: DR KAREN HIND

First Reviewer's Role: CHAIR. ETHICS (SES)

Date: 25/10/18

If applicable:

I approve this Ethics and Risk Assessment application and I have no conflict of interest to declare.

Appendix 2: SOC Major Groups

Managers, directors and senior officials	A significant amount of knowledge and experience of the production processes and service requirements associated with the efficient functioning of organisations and businesses.
Professional occupations	A degree or equivalent qualification, with some occupations requiring postgraduate qualifications and/or a formal period of experience-related training.
Associate professional and technical occupations	An associated high-level vocational qualification, often involving a substantial period of full-time training or further study. Some additional task-related training is usually provided through a formal period of induction.
Administrative and secretarial occupations	A good standard of general education. Certain occupations will require further additional vocational training to a well-defined standard (e.g. office skills).
Skilled trades occupations	A substantial period of training, often provided by means of a work based training programme.
Caring, leisure and other service occupations	A good standard of general education. Certain occupations will require further additional vocational training, often provided by means of a work-based training programme.
Sales and customer service occupations	A general education and a programme of work-based training related to Sales procedures. Some occupations require additional specific technical knowledge but are included in this major group because the primary task involves selling.
Process, plant and machine operatives	The knowledge and experience necessary to operate vehicles and other mobile and stationary machinery, to operate and monitor industrial plant and equipment, to assemble products from component parts according to strict rules and procedures and subject assembled parts to routine tests. Most occupations in this major group will specify a minimum standard of competence for associated tasks and will have a related period of formal training.
Elementary occupations	Occupations classified at this level will usually require a minimum general level of education (that is, that which is acquired by the end of the period of compulsory education). Some occupations at this level will also have short periods of work-related training in areas such as health and safety, food hygiene, and customer service requirements.
Military	

Appendix 3: Participant Letter

Dear Sir/Madam,

We are researching drinking habits of the working adult population in Newcastle upon Tyne. Most research on alcohol so far has focused on young people, at Durham University we are interested in learning more about how, when, and why adults drink alcohol.

We are looking for people willing to participate in this research who:

-Are over 18 years of age,
-Are employed, and,
-Consume alcohol.

If you agree to take part, you will be asked to complete a questionnaire exploring your general health, personal drinking habits, motivations and beliefs about drinking and interventions. It will take approximately 15 minutes to complete.

We would greatly appreciate if you could please follow the below link to complete the online questionnaire. Individuals and organisations will not be identifiable in the data and the study has received approval from the Department of Sociology's Ethics Committee.

Link: https://durham.onlinesurveys.ac.uk/alcoholandworkingadults
If you have any questions about the study please contact the lead researcher, Caitlin Sedgeworth: caitlin.i.sedgeworth@durham.ac.uk.
Thank you in advance,

Caitlin.

Caitlin Sedgeworth MPharm, MRPharmS.

Appendix 4: Paper Equivalent of Questionnaire

Drinking beliefs, habits and motives in working adults.

Most research on alcohol has tended to focus on young people. At Durham University we are interested in learning more about how, when, and why adults drink alcohol.

We are looking for people willing to participate in this research who:

- **Are over 18 years of age,**
- **Are employed, and,**
- **Consume alcohol.**

If you agree to take part, you will be asked to complete a questionnaire exploring your general health, personal drinking habits, motivations and beliefs about drinking and interventions. It will take approximately **15 minutes** to complete.

Any information you provide will be anonymous and only accessed by the research team.

If you are likely to find discussing general health, lifestyle behaviours or alcohol consumption distressing, then please do not participate. If you feel uncomfortable whilst completing the questionnaire, please do not continue. Once you have submitted your questionnaire it will not be identifiable, therefore, it cannot be withdrawn.

If you have any questions about the study please contact the lead researcher, Caitlin Sedgeworth: caitlin.i.sedgeworth@durham.ac.uk or the project supervisors, Kimberly Jamie: kimberly.jamie@durham.ac.uk or Jonathan Wistow: jonathan.wistow@durham.ac.uk.

If you are happy to participate, please read the following statements and check the box below:

I confirm that I have read the information sheet and meet all of the inclusion criteria.

I understand that my participation is voluntary and that information I provide may be used in reports and academic publications.

I understand that there are no right or wrong answers and questions should be answered as honestly and accurately as possible.

Please tick this box to continue: ☐

Age: _____ **Sex: _____** **Ethnicity: _____**

Job Title: _____

Approx. Annual Salary (please circle below):

<£10,000 £10-20,000 £20-30,000 £30-40,000 £40-50,000 £50-60,000

£60-70,000 £70-80,000 £80-90,000 £90-100,000 >£100,000

Do you have any dependent children (0-14years old) in your household? (circle) Yes No

Please state or estimate what you think are/believe to be the current UK guidelines for weekly alcohol consumption:

For a male:___Units For a female:___Units No Idea ☐

The questions below are designed to give an overview of your current health.
For each question, please circle the response which best describes your answer.

1. Overall, how would you rate your health during the **past 4 weeks**?

Excellent Very Good Good Fair Poor Very Poor

2. During the **past 4 weeks**, how much did physical health problems limit your basic physical activities (such as walking or climbing stairs)?

Not at all Very little Somewhat Quite a lot Could not do physical activities

3. During the **past 4 weeks**, how much difficulty did you have doing your daily work, both at home and away from home, because of your physical health?

Not at all Very little Somewhat Quite a lot Could not do daily work

4. During the **past 4 weeks**, how much did physical health problems limit your advance physical activities (such as playing sport, exercising or manual lifting)?

Not at all Very little Somewhat Quite a lot Could not do physical activities

5. How much bodily pain have you had during the **past 4 weeks**?

None Very mild Mild Moderate Severe Very severe

6. During the **past 4 weeks**, how much energy did you have?

Very much Quite a lot Some A little None

7. During the **past 4 weeks**, how much did your physical health or emotional problems limit your usual social activities with family or friends?

Not at all Very little Somewhat Quite a lot Could not do social activities

8. During the **past 4 weeks**, how much have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)?

Not at all Slightly Moderately Quite a lot extremely

9. During the **past 4 weeks**, how much did personal or emotional problems keep you from doing your usual work, school or other daily activities?

Not at all Very little Somewhat Quite a lot Could not do daily activities

The following questions give a brief overview of your drinking habits. There are no right or wrong answers, so please answer them as honestly and accurately as possible. This is not an analysis of your habits, and no feedback will be given for these answers.

1. On average how many days do you drink alcohol in a: Week?____

2. Which type of alcohol do you drink **most regularly**? Please circle **one** or provide detail if '**other'**

Wine Fizzy Wine (prosecco) Beer/Lager/Cider Spirits/Cocktails Alco-pops Combination of All

Other: _____

3. Where do you drink alcohol **most regularly**? Please circle **one** or use the space if 'Other'.

At Home Pubs/Bars Restaurants Range of Locations

Other: _____

4. On a day when you are drinking alcohol, how many units do you drink on average? (Use the diagram below to help you). _____Units

5. How often do you drink over 6 units (**if female**) / 8 units (**if male**)? (Use the diagram below)

____**days** each week

6. Relative to my peers, I drink: (please circle one)

More Less The Same

Below are a series of statements about your beliefs. Please circle the number that indicates the degree to which you agree with the statement.

Statements	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly Disagree (5)
It is more acceptable to drink at home than in public.	1	2	3	4	5
People who work drink more responsibly than people who don't work.	1	2	3	4	5
The government should not intervene with alcohol consumption in people like me who earn and pay contributions to society.	1	2	3	4	5
It is acceptable to drink alone.	1	2	3	4	5
People my age drink more responsibly than younger adults.	1	2	3	4	5
The government should not intervene with anyone's drinking.	1	2	3	4	5
It is acceptable to black out after drinking.	1	2	3	4	5
People like me who earn and pay contributions to society are entitled to choose how to spend that money.	1	2	3	4	5
I would drink less alcohol if it cost more.	1	2	3	4	5
It is acceptable to drink alcohol most evenings if it is with food.	1	2	3	4	5
My peer group drink more than other groups.	1	2	3	4	5
The drinking habits of people like me who earn and pay contributions to society is not an issue for the health service.	1	2	3	4	5
It is acceptable to be sick after drinking.	1	2	3	4	5
People like me drink more responsibly than those on lower salaries.	1	2	3	4	5

Below are 20 reasons why you might have had a drink in the past 12 months. Please circle the number that best indicates how frequently you have had a drink for that reason.

In the last 12 months how often did you have a drink:	**Almost Always/Always (1)**	**Most of the Time (2)**	**Half of the Time (3)**	**Some of the Time (4)**	**Almost Never/Never (5)**
To get a buzz?	1	2	3	4	5
Because it helped you enjoy a social occasion?	1	2	3	4	5
To fit in with people you like?	1	2	3	4	5
Because it helped you when you felt depressed or nervous?	1	2	3	4	5
Because it was part of your routine?	1	2	3	4	5
To feel more relaxed?	1	2	3	4	5
Because it made social gatherings more fun?	1	2	3	4	5
To be liked?	1	2	3	4	5
To cheer you up when you were in a bad mood?	1	2	3	4	5
Because you always have done/it was normal for you?	1	2	3	4	5
Because it was enjoyable?	1	2	3	4	5
Because it made meeting people easier?	1	2	3	4	5
So you didn't feel left out?	1	2	3	4	5
To forget about your problems?	1	2	3	4	5
Because it complemented your other activities?	1	2	3	4	5
Because it was fun?	1	2	3	4	5

In the last 12 months how often did you have a drink:	Almost Always/Always (1)	Most of the Time (2)	Half of the Time (3)	Some of the Time (4)	Almost Never/Never (5)
To feel less stressed?	1	2	3	4	5
Because you felt you had earned the right to do so?	1	2	3	4	5
Because you were bored?	1	2	3	4	5
To enhance a dining experience?	1	2	3	4	5

Thank you for participating in this questionnaire.

If you would be willing to be contacted about potentially taking part in a focus group about alcohol amongst working individuals in the North East, please leave your email at the bottom of this page. All email addresses will be stored securely and separate from questionnaire data so that these remain anonymous. **(Nb. For the online questionnaire a link is provided to a separate page so to allow email addresses to be left anonymously – separate from any questionnaire data provided).**

If any of these questions have made you concerned about your general health or alcohol consumption and you would like to seek information, guidance or help, please see details below:

NHS Alcohol Support: https://www.nhs.uk/live-well/alcohol-support/

Drink Aware: https://www.drinkaware.co.uk/alcohol-support-services/

Drinkline: Free helpline: 0300 123 1110 (weekdays 9am–8pm, weekends 11am–4pm)

Alcohol Concern: https://www.alcoholconcern.org.uk/get-help-now

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Contact Email: ……..

Appendix 5: Original and Altered DMQ-R-SF

Motive	**Original DMQ-R-SF** **In the last 12 months how often did you drink...**	**Altered DMQ-R-SF** **In the last 12 months how often did you drink…**
Enhancement	Because you like the feeling?	To enhance dining
	To get high?	To get a buzz?
	Because it's fun?	To feel more relaxed?
		Because it is enjoyable?
		Because it is fun?
Social	Because it helps you enjoy a party?	Because it helps you enjoy a social occasion?
	Because it makes social gatherings more fun?	Because it makes social gatherings more fun?
	Because it improves parties and celebrations?	Because it makes meeting people easier?
Conformity	To fit in with a group you like?	To fit in with people you like?
	To be liked?	To be liked?
	So you won't feel left out?	So you won't feel left out?
Coping	Because it helps you when you feel depressed or nervous?	Because it helps you when you feel depressed or nervous?
	To cheer you up when you're in a bad mood?	To cheer you up when you're in a bad mood?
	To forget about your problems?	To forget about your problems?
		To feel less stressed?
		Because you were bored?
Normality		Because it is part of your routine?
		Because you always have/it is normal?
		Because it compliments your other activities?
		Because you had earned the right to do so